Beyond the Basics Achieving a Liberal Education for All Children

Edited, and with an introduction and conclusion by Chester E. Finn, Jr., and Diane Ravitch





Beyond the Basics

Achieving a Liberal Education for All Children

Beyond the Basics Achieving a Liberal Education for All Children

Edited, and with an introduction and conclusion, by Chester E. Finn, Jr., and Diane Ravitch



Published July 2007 by the Thomas B. Fordham Institute The Thomas B. Fordham Institute is a nonprofit organization that conducts research, issues publications, and directs action projects in elementary/secondary education reform at the national level and
in Ohio, with special emphasis on our hometown of Dayton. It is affiliated with the Thomas B. Fordham Foundation. Further information can be found at www.edexcellence.net/institute or by writing to the Institute at: 1701 K Street, NW Suite 1000 Washington, DC 20006
This publication is available in full on the Institute's web site; additional copies can be ordered at www.edexcellence.net/institute/publication/order.cfm.

	WITRODUCTION Why Liberal Learning
	ART I LIBERAL LEARNING: ITS VALUE AND FUTURE Pleasure, Beauty, and Wonder: The Role of the Arts in Liberal Education
•	What Do They Know of Reading Who Only Reading Know?: Bringing Liberal Arts into the Wasteland of the "Literacy Block"
•	W(h)ither Liberal Education?: A Modest Defense of Humanistic Schooling in the Twenty-first Century
P	ART II RESTORING LIBERAL ARTS TO THE K-12 CURRICULUM
•	Testing, Learning, and Teaching: The Effects of Test-based Accountability on Student Achievement and Instructional Time in Core Academic Subjects
•	Is A Default Curriculum in High School A Good Strategy For Promoting the Humanities? 63 Matthew Gandal, Michael Cohen, & John Kraman
•	Time in School: Opportunity to Learn
•	The Case for Broadening Veteran Teachers' Education in the Liberal Arts and What We Could Do About It
•	Do We Need Strong Liberal Arts Curricular Materials?
•	Preparing Teachers to Teach the Liberal Arts
•	Expanding Access to Liberal Education in Public Schools: The Promise and Perils of Charter Schools and In-District Choice
•	Virtual Education and the Liberal Arts
•	Instructional Time and Curricular Emphases: U.S. State Policies in Comparative Perspective \dots 149 Aaron Benavot
•	Comfortable With Big Ideas
•	Excellence for Its Own Sake
C	ONCLUSION
•	Complacency and Its Consequences
A	PPENDIX
•	Recommendations for Action

Why Liberal Learning

• • •

Chester E. Finn, Jr. & Diane Ravitch

Chester E. Finn, Jr. is a senior fellow at Stanford's Hoover Institution and president of the Thomas B. Fordham Institute. Diane Ravitch is a senior fellow at the Brookings Institution and at the Hoover Institution, and is a research professor at New York University.

History offers many explanations for why people should acquire what today we typically term a "broad, liberal-arts education." Prominent thinkers and leaders over the centuries have expounded on the virtues of such learning. Aristotle said liberal education is necessary if one is to act "nobly." Benjamin Franklin said it was needed in order to cultivate "the best capacities" in humans. And Einstein found in liberal learning the locus for imagination, which he deemed more important than raw knowledge.

Within most such contentions is a common idea: liberal learning is critical to young people because it prepares them for "public life"—not just politics and government, but the civic life in which we should all partake. Whether as voters, advocates, or candidates, for a democracy to function well its citizens must be actively engaged in the decisions that affect their lives and those of their children.

Yet too few Americans are so engaged. Consider so simple a gauge as voter turn-out for presidential elections, which declined steadily from 1960 (63 percent of the voting population) to 2000 (51 percent, rising back to 55 percent in 2004). In off-year congressional elections, the figures are worse: 47 percent turnout in 1962, 37 percent in 2002. Such paltry rates of participation do not bode well for our democracy.

Public life doesn't end at the ballot box, however. From activism to taxes, from schools to zoning, we engage each other in public forums on a near-daily basis. At least as often, Americans engage each other in the vital non-governmental sector we know as "civil society," the clubs and organizations, the leagues and alliances, the teams and boards, that form bridges between otherwise isolated individuals and a 300-million person nation.

For such engagements to succeed, one need not have a college degree, much less a Ph.D. But it's close to essential to have a broad basic education. Over the years, really good primary and secondary schools have imparted this to their pupils. Their leaders and teachers have understood that young people who lack a command of English, who can't follow or create arguments in a manner that is readily understood by others, who do not grasp the behavioral requirements of civil discourse, and who are incapable of thinking about how changes in one area of government or

civil society can dramatically impact life in other realms of community life—such people are destined to find themselves on the outside looking in as others make decisions that affect their lives, their neighborhood, their city, state, and nation.

The need for more such schools—one may fairly say all schools—is a long-standing concern of ours, of the Thomas B. Fordham Institute, and of its antecedent Educational Excellence Network. For a quarter century, we've been writing, fretting, analyzing, and urging in this domain. That we haven't entirely succeeded is no reason to stop pushing for a K-12 system that provides every young American with an education that allows them to become fully functioning and contributing members of society. Indeed, one can fairly say that it's more important today—and its absence more ominous—than two decades ago. Hence, in December 2006 we organized a conference that brought together 200-plus scholars, policy leaders, public officials, and educators to discuss what can be done in the NCLB era to strengthen liberal learning in U.S. schools.

Even as leaders in Congress cogitate about reauthorization of that epochal but flawed statute, we wanted to know whether anybody was prepared to tackle one of NCLB's harmful if unintended consequences? We refer, of course, to "the big curricular squeeze"—the compression of the school program to reading and math skills and, sometimes science. Is this really what Congress intended in 2001? Does anybody really think that basic skills are sufficient for a 21st Century education? If not, what can be done to rebalance the curriculum?

The conference made clear that plenty of others share these concerns and that others should be helped to understand them. So, with the generous support of the Calder Foundation and the Carnegie Corporation of New York, and with expert editorial help from Martin Davis, we gathered the key findings and recommendations of the conference into the present volume.

What Was OK Yesterday Doesn't Cut It Today

Once upon a time, most U.S. schools sought a balanced education for their students. In addition to the three R's, along with generous exposure to history, math, science, literature, music, and art, these young people also received training in debate, in deportment, in values and character, and in elocution. One could fairly say they were being groomed for leadership or at least for responsible citizenship.

Even those not so "groomed," however, still learned the great stories of democracy, stories such as George Washington doffing the mantle of leadership at the

height of his power, Harriet Tubman and the Underground Railroad, Jane Addams's work with the poor, Andrew Carnegie's business success followed by philanthropy, Winston Churchill's lonely stand against Fascism, etc. And they were taught that they could, with learning and hard work, rise above their circumstances. So great are the numbers of those who transcended their origins and upbringings that the story has a name—the "American dream." Its mythos continues today, not because people want to believe in the impossible, but because few of us don't know someone who has "made it" in this fashion. The American dream retains a strong basis in reality.

Once upon a time, young people who had an inadequate education could also expect to earn an adequate living. Until recent decades, the U.S. economy contained enough low-skill, decent-paying jobs to permit ill-educated hard-workers to live a moderately comfortable life.

But it's getting harder to make such a life without a solid education. Today's children who fail to get one will not only find limited opportunities to participate in public life and civil society, but will also find it more difficult to earn a decent living. Today's economy is less forgiving of a weak education. Every year brings fewer "low-skill, high-pay" jobs. Because of globalization, this is a trend that will not likely change.

Not only will decent jobs be harder to come by, but keeping them will prove more difficult, too. Our society and economy are changing fast. Those who are unready to adapt will find themselves with fewer career options, fewer chances to participate in public life, and fewer chances to interact with the community at large.

Writing in 1984, we warned that failure to teach the liberal arts well would lead to graduates "who have no real intellectual interests or cultural lives, [whose] behavior is defined by the interaction between hedonistic cravings and externally imposed controls, who have no valid bases for judging the claims of politicians, gurus, and cult figures, and who lack any sense of a collective past or any vision of a better future."

Today, such words should be written in fire. Robert Putnam's *Bowling Alone* cataloged the many ways in which Americans are drawing farther into themselves and away from their communities, neighbors, even their own families. He warned that we're becoming a nation of spectators rather than doers, a society of individuals who would rather watch Monday Night Football (or Desperate Housewives) at home alone, than to spend the evening with co-workers or neighbors at the bowling alley, the American Legion, the PTA, or the church sisterhood. More people are also willing to let politicians "fix" our problems, rather than take the mantle of leadership.

Worse still, we could be forfeiting our souls. Without systematic exposure in

school to what Matthew Arnold called "the best that has been thought and said in the world," we are increasingly likely to be captured by the inanities and sensationalism of popular culture. We're surrounded by it, of course, and it requires nothing from the recipient other than the willingness to sit in front of a blinking screen. Offering up soft porn and hard violence, it appeals to our basest instincts. And a steady diet of it makes us more susceptible to prejudice, rumor, brainwashing, fundamentalism, and sloganeering while deadening our sensibilities.

Saving Us From Ourselves

This is bad for democracy itself. As Dewey observed,

A [Democratic] society ... must see to it that intellectual opportunities are accessible to all on equable and easy terms.... A society marked off into classes need be specially attentive only to the education of its ruling elements. A society which is mobile, which is full of channels for the distribution of a change occurring anywhere, must see to it that its members are educated to personal initiative and adaptability. Otherwise, they will be overwhelmed by the changes in which they are caught and whose significance or connections they do not perceive.

That liberal learning for all students is perhaps the surest path out of this quagmire is no new thought. Throughout the 20th Century, commentators noted its role in creating and sustaining modern democracy.

Writing just prior to America's entry into World War II when the threat to freedom and democracy was palpable and the outcome of the forthcoming struggle by no means assured, Isaac Kandel argued for grounding every student in a core curriculum based upon the liberal arts:

Education, true education, should liberate; it should cultivate the genuinely free man, the man of moral judgment, of intellectual integrity; it should give us the power to see the other side; it should impart nobility of purpose and kindliness of spirit. It should leave with us the inescapable truth that man is a spiritual being and that that the struggle for the mastery of the forces of nature is not merely for the satisfaction of human needs but is also inspired by the spiritual end of reaching out beyond our immediate lives to something eternal.

And more recently, A Nation at Risk recognized the centrality of a strong liberal education.

A high level of shared education is essential to a free, democratic society and to the fostering of a common culture, especially in a country that prides itself on pluralism and individual freedom.

The years after 1983 brought multiple efforts to address the shortcomings of K-12 education, particularly state-level efforts to create a transparent system of accountability based upon students' achievements in relation to new academic standards. Given widespread concern about flat student performance on the National Assessment of Educational Progress (NAEP), falling SAT scores, and flagging results on international assessments such as TIMSS and PISA, the pursuit of a standards-based strategy made sense.

The 800-pound gorilla of the standards movement is, of course, the federal No Child Left Behind act. Its premise was straightforward: prod all states to set academic standards and accompany them with exams to test students on how well they've mastered the material, with annual progress expected and measured, with interventions in schools that do not make such progress, all with the goal of having 100 percent of young people "proficient" by 2014.

Yet NCLB, like most state-level efforts, brought unintended consequences. Notably, the law requires that academic gains be demonstrated only in reading and math, and its sanctions and interventions are triggered only by failure to make gains in those two areas. They're worthy skills, yes, but not the whole of a proper education. Yet states, local school systems, and educators, understandably loath to be found wanting, have significantly ramped up the time spent teaching these two subjects and preparing students to take tests in them, to the detriment of "broad" and "liberal" and "arts."

Detriment takes many forms. It may be as obvious as diminished time for music and civics, or reduced course offerings in foreign languages, literature, and history. It may also be more subtle as teachers and counselors encourage fewer students to take liberal arts electives and administrators budget less money for liberal arts course materials.

Pressure to pass basic skills tests also leads teachers—often against their better judgment—to substitute "drill and kill" for "problem solving" or to forfeit real literature in favor of artificially sequenced textbooks filled with vapid, insignificant stories. "Rich content" doesn't have many forms of self-defense, not in the face of

external demands to hoist more kids over a specific bar to be determined by their scores on standardized tests. Never mind that E. D. Hirsch and others have repeatedly shown the danger that lurks here: that while reading "skills" may appear to rise in the early grades from adherence to structured reading "programs," student results will fall off—as in fact they've done—in the middle grades unless a solid content foundation has been laid. That's because success in advanced reading requires knowledge and understanding, not just decoding skills. Schools that neglect the knowledge base in the early grades can anticipate that their students will not be able to comprehend much in the middle grades and high school even if they appear able to "read" the words on a page.

We should have seen this coming. We and others who have pressed for higher academic standards in recent years—particularly since the Charlottesville education "summit" set national education goals in 1989—should have anticipated the "zero sum" problem that it would give rise to: more emphasis on some things would inevitably mean less attention to others. Insofar as we recognized this, however, we naively assumed that school days and years would expand to accommodate more of everything; that teachers would somehow become more knowledgeable; and that state and federal policy makers would insist on a balanced curriculum.

We were wrong. We didn't see how completely standards-based reform would turn into a basic-skills testing frenzy or the negative impact that it would have on educational quality.

STEMs Without Flowers

Recent days have brought yet another challenge to liberal learning in the schools: well-meaning business leaders and policy makers, rightly concerned about America's (and their states') competitiveness and the dearth of highly skilled workers able to sustain tomorrow's technology-driven economy, are pushing so-called STEM (Science, Technology, Engineering, and Mathematics) training.

STEM seeks to give students the skills needed to handle the technology-rich tools that undergird the modern economy. Understandably, leading proponents of STEM have included the Business Roundtable and the National Association of Manufacturers (NAM), vividly aware of the difficulties that employers face in finding, hiring, and retaining such people. NAM reports, for example, that 90 percent of America's manufacturers now face shortages of skilled production employees such as machinists, operators, craft workers, distributors, and technicians.

Such problems are real. Yet those who see K-12 education as the solution to them are pointing America toward yet another curricular tightening and another round of unintended consequences. In the long run, America's true competitive edge is not its technical prowess but its creativity, its imagination, its inventiveness, its people's capacity to devise new solutions, to innovate, to invest new organizational as well as technological forms, and to eke productivity gains out of what others see as static situations. STEM cannot claim to inculcate such attributes any more than the basic-skills folks can. Indeed, too much STEM may mean too few leaves and flowers. If children are deprived of the rich content of American history, as well as the history of other cultures, geography, the arts, languages, and literature, they will face unmanageable challenges on many fronts.

Fifty years ago, ours was a relatively stable society in which many people stuck with careers over their entire lifetimes, often working for the same employer, frequently in the same city or town. Today, mobility is the norm, and commitment to the corporation is a bygone nostalgia. People change jobs. They try various careers. They develop new interests. They start over again. They seize opportunities. They go back to school. They take up new hobbies. They live longer.

Neighborhoods are more fluid, too. People move in and out with greater regularity. And today's neighborhoods are more diverse in myriad ways.

To compete successfully in a world where one may well speak with his Hispanic neighbor before leaving for the office, bargain with a Nigerian taxicab driver, then negotiate a marketing deal via teleconference with counterparts in Tokyo, Sao Paolo, or Moscow, one needs to broaden his base of learning. It's doesn't suffice to know a lot about a narrow field. It's important to be well versed in a broad array of technologies, cultural histories, and languages.

Hirsch terms this intellectual scaffolding. The more varied and broader the information that you have at your disposal, the more likely you will be able to move seamlessly from one situation to another. Which we do more and more often.

Gone are the days when local clubs catered mostly to people who resembled one another in ethnicity and/or occupation. Today's bowling alley simultaneously hosts the union plumbers and the Asian-American meet-and-greet. Churches that are engaged in working with their local communities find increasingly that the world of ministry in their own backyard has the look of Africa, Asia, and Latin America. Our children attend heterogeneous schools, and spend time and develop friendships with families for whom English is not a first language.

No preparation readies one for these realities better than the rich disciplines that are the province of liberal learning. For Aristotle and Franklin, it was enough that the well-heeled were well educated. Today, however, everyone needs such learning. In Robert Maynard Hutchins's words, "The best education for the best is the best education for all." More than ever, our world demands it.

The Chapters Ahead

This volume is organized into two sections. *Liberal Learning: Its Value and Future* includes three papers that make compelling arguments both for liberal learning and for a common curriculum.

Dana Gioia is chairman of the National Endowment for the Arts as well as a successful poet and literary critic. His essay focuses on the value of the liberal arts (especially the fine arts) for our students and our economy. When one looks to explain the success of America, he argues, the answer lies not in our mastery of technical information, but rather in our creativity, which is nurtured and flowers in liberal study.

E. D. Hirsch, Jr. is University Professor Emeritus of Education and Humanities at the University of Virginia, author of *Cultural Literacy*, *The Schools We Need & Why We Don't Have Them*, *The Knowledge Deficit*, and many other works, and founder of the Core Knowledge Foundation. He explains why additional time devoted to reading has not boosted reading results in the later grades, where comprehension matters. Such comprehension depends on possession of relevant prior knowledge, the teaching of which is being neglected in the self-defeating pursuit of reading comprehension "strategies."

David J. Ferrero is a senior program officer for the Bill & Melinda Gates Foundation and a former high-school teacher. He observes that, while mainstream school reform efforts devalue liberal education in favor of workforce preparation, rival models of liberal learning complicate efforts to promote any single curriculum. Ferrero goes on to argue that rival models of liberal learning have merit and that their partisans must work together to promote policies that nurture them all while honoring their distinctiveness.

Part II, *Restoring Liberal Arts to the K-12 Curriculum*, features 11 explorations of how to expand liberal learning by improving accountability systems, teacher training, and the education delivery system.

Martin West, assistant professor of education, political science, and public policy at Brown University, looks at how test-based accountability systems impact instructional time. He concludes that what gets tested indeed is more apt to get

taught and that increasing the number of subjects built into state and federal accountability systems may be an effective way to advance liberal education.

Matthew Gandal (executive vice president), Michael Cohen (president), and John Kraman (senior policy analyst) are with Achieve, Inc., a non-profit organization formed by governors and CEOs to help states raise their academic standards, improve assessments, and strengthen accountability to prepare all young people for postsecondary education, work, and citizenship. Their paper examines 13 states that have adopted high-school course requirements aligned with the American Diploma Project. While early returns show some progress (especially in Texas and Indiana), they conclude that it's too soon to be certain whether boosting high school course requirements will ensure that students receive a sound liberal education.

Kate Walsh, president of the National Council on Teacher Quality, tapped her organization's new database of collective bargaining agreements and school board personnel policies to examine the actual number of hours that students are in school in various U.S. cities. She finds that children in Chicago spend the equivalent of 8 fewer weeks in school per year than students in New York. While these data relate only to the hours that schools are open, not time that students spend on task, they plainly show that less school time leaves less room for liberal-arts teaching—and everything else.

Sandra Stotsky, an education consultant and member of the Massachusetts Board of Education, served as senior associate commissioner in the Bay State's Department of Education from 1999 to 2003. Her essay suggests ways by which the liberal education of current teachers might be extended through professional development requirements that could help to compensate for deficiencies in their undergraduate education and counter the effects of district policies that tend to deepen those deficiencies.

Joan Baratz-Snowden, president of the Education Study Center and former director of the Educational Issues department of the American Federation of Teachers, calls for the development and dissemination of multiple K-12 liberal arts curricula. She examines some of the constraints in doing so (e.g., the economics of the textbook and education materials industry) and urges more rigorous training of teachers, more involvement by them in curriculum development, and more federal and philanthropic funding to disseminate and prepare teachers to use extant curricula of high quality.

David Steiner, dean of Hunter College's school of education, discusses teacher preparation in and for the liberal arts. His concern is not only that future teachers receive a solid liberal education, but that they receive a liberal education

they can use—one that does not sacrifice the arc of history, or a broad understanding of literature, to the minutia that defines today's college-level liberal arts courses. Moreover, these would-be teachers must be well-instructed in imparting that information to their own charges. It is not a question of which is more important, he argues, but rather striking the balance between a solid academic training and the practice of teaching those skills to youngsters.

John Holdren, Senior Vice President of Content and Curriculum at K12 Inc., and formerly Director of Research and Publications at the Core Knowledge Foundation, looks after the quality and scope of content and instructional approaches in K12's curricular offerings. Bror Saxberg, Chief Learning Officer for K12. Inc., holds an M.D.-Ph.D. from Harvard Medical School and MIT's Department of Electrical Engineering and Computer Science, and focuses on applications of technology and cognitive science in K12's offline and online materials to enhance student learning performance. Their article examines the current landscape of virtual education—what it is, what needs it fills, various forms it takes, opportunities for its application in different settings, and public policy considerations—with a focus on how online learning can promote and enhance instruction in the liberal arts.

Aaron Benavot, a senior policy analyst with UNESCO, compares instructional time in U.S. schools with other OECD nations. Though any such analysis is handicapped by the dearth of aggregate American data (Benavot looked at a handful of states that mandate instructional time), he finds that American students spend somewhat more time in school but relatively less of it in subjects other than reading and language arts.

The book's last two essays feature successful leaders who ascribe much of their success to liberal learning. New York Prosecutor and Marine officer **Matthew Bogdanos** explains how *The Iliad* early on shaped his sense of duty, honor, and what it is to be a "fully sensate human being." And venture capitalist **John Backus** describes how the characteristics of successful venture capitalists are formed by a solid liberal education.

Then we return with a few closing thoughts. And an appendix summarizes the authors' recommendations.

Pleasure, Beauty, and Wonder: The Role of the Arts in Liberal Education

Dana Gioia

Dana Gioia is chairman of the National Endowment for the Arts, poet and critic. He is author or editor of more than 20 books.

Mr. Gioia spoke without notes in Washington, D.C., on December 12, 2006. This essay is a slightly edited transcript of his extemporaneous remarks.

Our nation's capital draws tens of thousands of tourists each year, and most spend considerable time on Pennsylvania Avenue. They see some amazing structures there, but how many see more than the obvious? That street not only displays beautiful buildings, but it also presents our nation's intellectual heritage reflected in the architectural styles.

At one end of Pennsylvania Avenue sits the U.S. Capitol, a building of Roman architecture. It reminds us of our country's roots in the Roman Republic and Athenian Democracy. Turn around, and there stands a huge Egyptian obelisk dedicated to one of the first leaders in human history who voluntarily resigned his power at its very height—George Washington. He was a new world leader who followed in the footsteps of his hero, the Roman Cincinnatus, and returned to civilian life because he knew it was more important to preserve freedom than to preserve his particular vision of freedom. Turn a bit more, peer through the trees, and there's the White House, a Georgian mansion, a reminder of our debt to England, to Common Law and individual freedom.

From a single street corner outside this hotel in Washington, we can observe the legacy of Athens, Rome, Egypt, and England. We can see that America is part of an enormous human enterprise. That is, we can see this legacy, if our education allows it. If not, then all we see are famous buildings. Likewise the ability of our children and grandchildren fully to appreciate American society, and fully to engage in it, depends on education.

Today there are two closely related visions of American education in practice. One aims to produce children who pass standardized testing at each level. The other is one that produces entry-level workers for a consumer society. Both targets might be interesting as tactics, but neither are inspiring objectives for education.

These are very small aims—far too small to guide and inspire an adequate educational system. Let me offer an alternative vision. The purpose of education in the United States should be to create productive citizens for a free society.

Those words and ideas are worth examining. The first term is "productive." We are now in the twenty-first century. The twentieth century was the American century during which the U.S. was preeminent in terms of productivity, innovation, wealth, and power. The world is a much more complicated place today. The United States is not going to compete with the rest of the world in terms of cheap labor or cheap raw materials. If we are going to compete productively with the rest of the world, it's going to be in terms of creativity and innovation. America has always had a capacity for hard work and stamina, but those qualities of creativity and ingenuity are not being nurtured and fostered by our current educational system.

The next concept is "citizenship," which is the mutual vision of society that we share as citizens. The decay of that civic principle, that vision of citizenship, within the past half-century is astonishing. We must realize that our schooling system, be it public or private, is the basis of citizenship. Education is universal and mandatory in our society. Schools remain the most important public spaces that we share as citizens, and education creates a foundation of our common lives. Wherever else we go later in life, this is the one time where we are all together.

It seems to me that the most important thing we can do for our children during those shared years is to give this next generation of Americans a sense of the possibilities of their own life. There is no way we can train people to be productive citizens in a complex, free society if all we do is prepare them to pass standardized tests. I'm not an enemy of these tests, because if people can't read, if they can't add and subtract, they can't do much else. But literacy and mathematics are only the foundation of a building. We need to add the walls and the upper stories. One of the best ways to accomplish this task is through teaching the liberal arts, and in particular, the fine arts.

The purpose of arts education is not—as many people assume, including many academics—to create professional artists. This is a narrow view. We do not study poetry to become poets. Nor do we study music to become musicians, or theater to become actors. That sometimes happens, but it is a by-product of arts education and not its main goal. The real purpose of arts education is to awaken us to the full potential of our humanity both as individuals and citizens in society.

My own childhood is an example of the power of the arts to transform a life. It was a very typical American childhood, which is to say I was raised in a family

where most people were not native speakers of English. My father was Sicilian. My mother was Mexican. I was raised in a working-class Mexican neighborhood by Castellammarese-speaking Sicilians. I had the considerable advantage not only of speaking a dialect that most Italians can't even understand at home, but also of being raised in the Catholic Church when Latin was still used as a ritual language.

I had what Vladimir Nabokov called a "perfectly normal trilingual childhood." Indeed, it's quite typical of Americans. There is the ritual language—be it Hebrew, Latin, or Greek. There is the language of the old world—be it Castellammarese, Yiddish, Modern Greek, Spanish, or what-have-you. And then there is the new language being learned, which is the language of the common world—English.

I was also raised by people who had gone through enormous hardships and privations in their lives, and only with enormous difficulty had brought themselves to America to a town in Los Angeles called Hawthorne, which—despite being named after a great American writer—was far from Nirvana. Quentin Tarantino's films *Pulp Fiction* or *Jackie Brown* capture the special charm of my birthplace, where an argument is more likely to be settled with a knife, or a gun, than with words.

As a child, I'd never met anyone who had gone to college. The highest aspiration in my neighborhood was to stay out of jail and get a union job—and not all of my relatives managed to achieve either of those goals. Everyone had a relative in jail, whether for something small or big. Many people in my neighborhood had failed to finish high school. The reason that I am where I am today is not because of Harvard or Stanford. It is because of poetry, music, and art.

From my earliest age, I would hear my mother—apropos of nothing, except some inner wave of emotion that she could not or dare not communicate directly—suddenly begin to recite:

It was many and many a year ago,
In the kingdom by the sea,
That a maiden there lived whom you may know
By the name of Annabel Lee;
And this maiden she lived with no other thought
Than to love and be loved by me.

I was a child and she was a child,
In the kingdom by the sea,
And we loved with a love that was more than love,
I and my Annabel Lee;
A love that the winged seraphs of heaven coveted her and me. . .

(From "Annabel Lee" by Edgar Allan Poe)

These moments of poetry gave me a sense of something beyond the treeless cement city of apartments and parking lots where I was raised.

Likewise we had a large, mostly unvisited depository library in Hawthorne. Political graft sometimes, inadvertently, does wonderful things—such as building this library. I'm not sure how much local officials got on the take, but it must have been considerable. Still, the officials made sure that there were thousands and thousands of books. And so, just four blocks from my house, I had an enormous library where I went every afternoon when school finished. (Both my parents worried.) I pursued my interests in those stacks and in the process discovered my adult self.

Then there was music. A wonderful nun, Sister Camille Cecile, taught me the piano in second grade. She was of that ancient order who believed piano lessons and corporal punishment were inseparable. God bless her. Sometimes it takes a little baton on the knuckles to get the attention of a 9-year-old boy who doesn't care about piano. But somehow, by the age of 10 or 11, I was playing pieces by Bartok and Mozart. Studying music opened up another vision. Suddenly, as a young boy, I was guided by three of the most dependable teachers in the world—pleasure, beauty, and wonder.

I found all three qualities in painting. At the library I began systematically to read through the books on Italian Renaissance art. It helped me to know that there was something beyond my neighborhood, something beyond the very modest practical goals of my neighbors. I became the first person in my family to go to college. I went to Stanford. And then I eventually discovered what I wanted to be, a poet.

If the arts are to have the opportunity to affect our children as they did me, they must be presented to children in at least one of two places: early education, where kids are just getting some sense of what the world is; and—probably most crucially—at puberty, when a child is coming into his or her own individuality and separating himself or herself from the family. Children at this age will define themselves either in positive or in negative ways. An example of a negative means of self-

definition, common for working-class kids, is gangs. Kids join a gang because it gives them a social and individual identity that gets them through the day.

Take a 15-year-old who is awkward, who does not feel that she fits into any social class in school. This teenager is probably not terribly interested in her school-work. Moreover, she feels cut off from her family. But then she auditions for a play. She discovers that there is a group of other kids just like her—alienated youth that feel that they don't belong. These "outsiders" are called theater people, creative people. Once in such a group, that 15-year-old realizes that she isn't abnormal. She is recognized for her acting, she gets applause for doing something that is very closely aligned with these inchoate, inarticulate desires of selfhood, of the self-articulation inside of her.

My high school had the best band in Southern California. Most of the first-chair musicians in our band were unruly or rebellious kids. Had they not learned trumpet or drums at an early age, who knows what destructive force they may have unleashed on society? The band gave these kids a way of socializing, a way of directing their energy and everything else that was positive.

The same thing applies to school newspapers, drama clubs, choruses, and other arts groups. When you cut these activities out of school, which the local school boards and state school boards have systematically done in the United States over the past 30 years, you shut the doors of self-realization to a generation of Americans. Those doors once invited students to discover what they are actually good at. They provided positive means of socialization instead of negative forms of self-socialization (or no socialization). They developed and refined young people's productive skills. So the benefits were not only individual or social, but also economic.

Incorporating the arts into other subjects can enliven the classroom. Pleasure, beauty, and wonder are not out of place in history class. These qualities are not decorative to learning; they are essential. But they are so often forgotten, even in English classes. No wonder kids don't read for pleasure. Pleasure has been so rarely part of their education in reading. The books assigned at every level of education are boring and pedantic. To fix this, we need to recognize the importance of these subjects, the power that they unleash, and how easily they can be incorporated across the curriculum.

Another example from my own experiences illustrates the point. I was invited to teach a graduate poetry class at Sarah Lawrence, which often has the distinction of being the most expensive school in the United States. I asked my students to memorize and recite poems every week. They were shocked. Most of them had never memorized a poem in their entire lives.

They complained, but I wouldn't budge, so the memorization and recitations began. I had one student—a truly terrific student—to whom I had given Shakespeare's sonnets. She would always recite her poem in such a dull, monotone voice that I realized she had memorized it on the wrong side of her brain. She had memorized the poem in the visual half versus the auditory half. She had a whole hemisphere of her brain that she didn't know how to use as a writer. As it turned out, most of my students were initially awkward in similar ways. When reciting, they sounded like a talking mechanical alarm clock that my mother-in-law once gave me.

But there was another student, generally my worst student, who recited poetry beautifully and expressively. After hearing her delivery, the whole dynamic of the class changed. Everyone understood that, even though this student wasn't good in analytical work, she had real talent. She earned their esteem. After that day, she began to participate in class because I'd given her a chance to show what she was good at.

I would like to see an American education system that uses the power of the arts to open doors that allow kids develop their own talents. I would like to see a system that uses the arts to take the class clown and, at least for one or two moments a day, lets him become the class star. The arts are one of the ways that we can do this. We need a system that grounds all students in pleasure, beauty, and wonder. It is the best way to create citizens who are awakened not only to their own humanity but also to many possibilities of the human world they are about to enter.

What Do They Know of Reading Who Only Reading Know? Bringing Liberal Arts into the Wasteland of the "Literacy Block"

E. D. Hirsch, Jr.

*University Professor Emeritus of Education and Humanities, author of*The Knowledge Deficit, and other works, and founder of the Core Knowledge Foundation

Why is it that the more we emphasize reading in the early grades, the less well our children read by the time they reach grade eight? School people deeply wish to know the answer to that question. I can say without hesitation that my colleagues and I at the Core Knowledge Foundation know the answer. Unfortunately, it is not an answer that many educators wish to hear. For one thing, the solution to the reading problem runs counter to doctrines that reading specialists have learned and duly promulgate. For another, the solution to the reading problem runs counter to some of the most deeply held convictions of the American education community. In short, the reading problem in U.S. schools is a problem of ideas—ideas about reading, in the first place, and ideas about curriculum, in the second place. Let me take up these two topics in turn.

Ideas about Reading. We are told by reading specialists that the road to improved comprehension is through mastery of comprehension skills such as classifying, questioning the author, and finding the main idea. Specific content is secondary. Any appropriate, "authentic" content, it is said, will build vocabulary and develop comprehension abilities. This how-to conception of reading dominates current thinking; but we cannot make significant progress in reading until this conception loses its power over us. Children who lag behind are being subjected to endless practicing of strategy skills such as "finding the main idea." Their slow progress induces our schools to add still more time to the literacy block—up to three hours a day in many places—during which time students practice empty exercises on trivial fictions that subtract from time that could be devoted to the substantive knowledge actually needed to gain reading comprehension.

On May 31, 2004, a front-page story appeared in the *Washington Post* describing the activities in a third-grade classroom. Linda Perlstein, the reporter, had spent months observing the classroom. I'll quote a brief passage from her report:

Here is 9-year-old Zulma Berrios's take on the school day: "In the morning we read. Then we go to Mrs. Witthaus and read. Then after lunch we read. Then we read some more." ... For 50 minutes, Tracey Witthaus pulls out a small group of third-graders—including Zulma—for an intensive reading-comprehension program. Instead of studying school desegregation and the anniversary of Brown v. Board of Education, Zulma's group finishes a book about a grasshopper storm and practices reading strategies: Predict, summarize, question, clarify. "Clarify," said Zulma, who began the year reading at the late first-grade level. "When I come to a word I don't know, I look for chunks I do. Reminded. Remine-ded." "Clarify," said Zulma's classmate Erick Diaz, 9, who began the year reading at a second-grade level. "When I come to a word I don't know, I look for chunks I do." The methods are not working. Reading scores at the school are not going up significantly. Staff members said they aren't sure what they might be doing wrong.

Let me quickly absolve school reading specialists from any responsibility for committing these education crimes. Schools are carrying out the five themes enunciated by the National Reading Panel (NRP): phonemic awareness, phonics, fluency, vocabulary, and text comprehension. The last theme consists of the following tasks: students monitor their own comprehension, make predictions, use what they already know, question the author, identify the structure of the story, and summarize the main idea. Given the authority of the NRP report, it is only reasonable that schools should be filling the hours of the literacy block by having students monitor their comprehension, make predictions, use what they already know, question the author, identify the structure of the story, and summarize the main idea.

And what is the content upon which these skills are being exercised? Quoting from the table of contents of the best seller among the programs, Houghton Mifflin, the following are some of the stories upon which our children are exercising these so-called metacognitive skills: A Dragon Gets by, Roly Poly, How Real Pigs Act, It's Easy to Be Polite, Mrs. Brown Went to Town, Rats on the Roof, Cats Can't Fly, Henry and Mudge and the Starry Night, Campfire Games, and Around the Pond.

Let's assume that these are all charming stories and worthy vehicles for helping students monitor their comprehension, make predictions, use what they already know, question the author, identify the structure of the story, and summarize the main idea. It is reasonable to ask whether the many hours spent on these strategies with these ran-

dom stories leave the children knowing *very* much more about language and the world than when they started. If the topics seem scattered and haphazard to us, imagine how they seem to a first grader—say, a young child from disadvantaged circumstances—who is being asked to use his or her prior knowledge in summarizing the main idea.

The truth is that the recommendations from the NRP report about metacognitive strategies are misleading. The NRP report is highly incomplete in the very area, comprehension, on which so many sterile hours are being spent by the schools on so many fragmented and educationally trivial stories. The research citations in the NRP report ignore or deemphasize important studies that have established a central finding about reading comprehension—that the possession of relevant prior knowledge is the single most potent contributor to the comprehension of a text. The lack of relevant prior knowledge will hinder comprehension, no matter how many long hours a child has spent learning to monitor, question, or summarize. There is a consensus among comprehension researchers that students with low fluency and selfmonitoring skills but with relevant prior knowledge will comprehend better than those who have excellent technical reading skills but are weak in relevant knowledge.² My favorite example of this is a much-cited experiment in which students were given a story about baseball. Students with low reading skills who knew about baseball understood the passage faster and better than students with high technical reading skills who were weak in baseball knowledge.

Where does this important finding about relevant prior knowledge leave us if we want our students to score better in reading tests? In my recent book, *The Knowledge Deficit*, I used examples from state tests to show that relevant background knowledge was being tested fully as much as technical reading skills. This is especially true of the tests in later elementary grades and in high school, for which our students do quite poorly by U.S. standards and in international comparisons.

How do we ensure that students possess the background knowledge that will make them good readers? After all, if the background knowledge necessary for comprehension has to be text-relevant—or, as cognitive scientists say, "domain specific"—how do we ensure that our students have knowledge of the many, many knowledge domains that are involved in school tests and real-world reading tasks?

If we want to make sure that students have the background knowledge they need to be good readers, we must give them a good general education—that is, an education in literature, science, history, and the liberal arts. That is the *only* kind of education that can build good readers. Period. Wasting hours on hours of precious

school time on trivial, disconnected stories and on futile how-to exercises deprives students of hours that could be spent on learning literature, science, history, and the arts. The opportunity costs of these endlessly repeated exercises are nothing less than tragic.

Let's imagine an experiment in which two similar school districts are being compared. One district, let us call it the "orthodox district" continues devoting the many hours of the literacy block to *A Dragon Gets by, Roly Poly, How Real Pigs Act, It's Easy to Be Polite, Mrs. Brown Went to Town, Rats on the Roof, Cats Can't Fly, Henry and Mudge and the Starry Night, Campfire Games,* and *Around the Pond.* Students continue to practice monitoring their comprehension, making predictions, using what they already know, questioning the author, identifying the structure of the story, and summarizing the main idea.

We know what the results will be, because we have test scores before us from schools throughout the country. Compared with reading scores of past years, the districts now show a slight rise in grade four, but stagnation or decline in grade eight and beyond. But these later reading scores are the ones that count. A score on a fourthgrade reading test is irrelevant to a student's success in later life compared with the score on an eighth-grade or eleventh-grade reading test, which is fateful for that person's future and, by extrapolation, the future of the nation.³

Now consider a demographically comparable district that pursues a different course. Let's call it the "unorthodox district." Instead of teaching trivial stories and having students endlessly practice comprehension strategies, the district mandates that extensive time during the literacy block shall be spent on specified topics in literature, science, history, and the fine arts. Because the listening skills of young children far exceed their reading skills, these subjects would be taught in the earliest grades through texts that are read aloud and discussed. Several weeks will be spent reading and discussing a particular domain, building up relevant knowledge and vocabulary for all students, and thereby narrowing the knowledge gap between advantaged and disadvantaged students.

How would that unorthodox district compare in its reading scores to the orthodox district? Disappointingly, in third and fourth grade, its scores would be little different from those of the orthodox district—and this would be so for two reasons. First, reading tests in third and fourth grade do not test comprehension very deeply. Professor Joseph Torgesen and his colleagues have shown that, early on, technical skills of decoding and fluency are tested primarily, with background knowledge being tested more fully only in later grades. So, there is no reason that the two districts should be far apart in tests of technical preparatory skills. Another reason for seeing little early

difference between the districts is that vocabulary, which is a critical element in later reading tests, is a plant of gradual growth. Word learning occurs with glacial slowness over a broad front, and in the early stages, much of that learning remains *latent*. It is not until fifth or sixth grade that a dramatic leap in vocabulary and in reading scores would become noticeable between the two districts. But the differences then will be quite remarkable, as we know from longitudinal studies, and if any large district actually undertook such a long-range approach, the results would be so significant that it would herald the solution to the nation's reading problem. Over past decades, if we had been teaching a strong liberal arts curriculum in the early grades, we would not currently *have* a reading problem.

Why, then, have we not taught a strong liberal arts curriculum in the early grades? This brings me to the second of the two ideas that have blocked education progress—the elementary curriculum.

Ideas about Curriculum. If you look at Figure 1 below, you will see that there was a sharp decline in the verbal abilities of American twelfth graders from a peak in 1963 to a low point around 1980. Thereafter, despite our current modest progress, scores have remained rather flat.

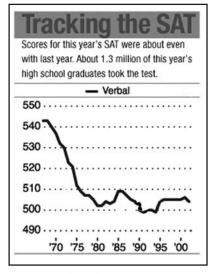


FIGURE 1. Tracking the Scholastic Aptitude Test

Source: The College Board, AP, 2002

Educators claim that the precipitous drop in the 1960s and 1970s was the result of an increase in the numbers of lower-income students taking the Scholastic Aptitude Test (SAT), but this explanation has proven to be inadequate. Cutting to the nub of the issue was a quiet

insight by the sociologist Christopher Jencks, who observed that the state of Iowa, like the rest of the nation, suffered a decline in verbal scores during the 1960s and 1970s. In those days, Iowa was 98 percent white and 98 percent middle class. Hence, a supposed sharp rise of low-income test takers could not adequately explain why Iowa, like every other state, declined so sharply in the 1960s. Jencks correctly posited that the chief cause of the verbal decline was what had been happening to instruction in the nation's schools.

What *did* happen to school instruction in the 1950s that lowered the scores in the 1960s and thereafter? (I say 1950s because it takes some years for a student to receive the full benefit or liability of a new education idea, so when we see twelfth-graders declining drastically in the mid-1960s, we need to know what changes occurred in schooling during the previous decade.) Mostly, it was this: a new post-1945 generation of teachers and administrators replaced the older ones, and this new cohort shared strongly held ideas about curriculum and followed new textbooks reflecting those ideas. Recent analyses of the watering down and fragmentation of textbooks have confirmed this explanation. By the 1950s, most teachers, administrators, and textbooks reflected a new point of view, variously called child-centered education, progressivism, or constructivism. Its key feature was opposition to subject-centered education and to a grade-by-grade curriculum set up in advance.

We can see what lay behind this change in schooling in an essay written in 1939 by the brilliant scholar Isaac Kandel, an education professor at Teachers College. He crystallized what was happening then to American education and why it was happening. He observed that, since the early years of the twentieth century, American education professors had argued about whether schooling should center on subject matter or grow from the needs of the pupil. The latter idea was the one that caught hold. Kandel's 1939 summary of this new scheme of education can hardly be improved upon.

Rejecting ... emphasis on formal subject matter, the progressives began to worship at the altar of the child. Children [they said] should be allowed to grow in accordance with their needs and interests. ... Knowledge is valuable only as it is acquired in a real situation; the teacher must be present to provide the proper environment for experiencing but must not intervene except to guide and advise. There must, in fact, be "nothing fixed in advance" and subjects must not be "set-out-to-be-learned." ... No reference was ever made to the curriculum or its content. ... The full weight of the progressive attack is against subject matter and the planned organization of a curriculum in terms of subjects.⁴

"The full weight of the progressive attack is against subject matter and the planned organization of a curriculum in terms of subjects."

Reading these remarks of Kandel after my many years of experience in the field brought all into focus for me. It made me realize finally that *none* of the reasons currently marshaled in opposition to definite subject matter or "mere facts" are the *real* objections to a set curriculum. Not the importance of local control, not the ever-changing character of knowledge, not the closing off of creativity, not conservative politics, and not elitism, Eurocentrism, or the other scary objections to a set curriculum. Those who pronounce these views surely believe them, but the more fundamental, often hidden, issue concerns the fundamental operational idea of progressivism about whether there should be *any* set curriculum at all.

Anyone who doubts that *this* is the fundamental issue can take a simple test. Whenever an objection against a particular content curriculum is made, ask yourself the following question: Is the objection followed up by a counter-proposal for an alternative content curriculum that removes the supposed objection? This *never* happens. If you examine state or district language arts standards, you will find that specific content is left up for grabs. This strange fact is not owing to indifference, it is the historical result of the doctrine that *there shall be no set content curriculum*.

This explains why the state-standards movement has been so toothless and ineffectual in enhancing verbal abilities. The public takes the word "standards" to include the idea of guides to curriculum content. But that word "standards," which we have become so used to employing, is often a way of *avoiding* detailed content without seeming to avoid it. Typical state standards read like this:

1. Students will comprehend, evaluate, and respond to works of literature and other kinds of writing which reflect their own cultures and developing viewpoints, as well as those of others. 2. Students will demonstrate a willingness to use reading to continue to learn, to communicate, and to solve problems independently." These words are then repeated verbatim for several grade levels. As are these words: "Students will use prior knowledge to extend reading ability and comprehension. Use specific strategies such as making comparisons, predicting outcomes, drawing conclusions, identifying the main ideas, and understanding cause and effect to comprehend a variety of literary genres from diverse cultures and time periods."

The job of constructing state standards has been placed in the hands of people who have long been indoctrinated with the principle that *there shall be no set content curriculum*.

Until state standards define a core of grade-by-grade content that cumulatively builds up students' knowledge, what is a school or district to do? How can more and more schools and districts resemble our imagined unorthodox district and raise reading scores in the later grades where they count? Some Core Knowledge schools have achieved that goal by teaching Core Knowledge subjects—literature, science, history, and the fine arts—within the literacy block itself. They do spend up to an hour each day in the earliest grades on the technical skills of reading and writing, but they use the rest of the literacy block educating children in subject matter. This has resulted in some Core Knowledge schools achieving the highest demographically adjusted reading scores in their areas.

Some years ago, the late-great reading researcher Jeanne Chall recommended that the schools introduce real subjects into the language arts block. Her advice was not heeded. The anti—set—curriculum idea was too strong, and so was the idea that language arts consists only of fiction and poetry. How *that* mistaken notion arose, the idea that language arts is exclusively imaginative fiction and poetry, is the subject of a separate essay, but it is a further illustration of my present theme—that is, the enormous power of ideas in determining the fate of U.S. education. The two disastrously mistaken ideas that I have focused on here—that reading is a formal skill like typing, and that we should not mandate core content—are potent enough to account for most of our failures. It will not be easy to overcome these two established ideas. Nothing will be more critical than doing so—for the educational achievement of our children and for social justice.

Endnotes

- ¹ The allusion is to Kipling: "What should they know of England who only England know?"
- ² See E. D. Hirsch, *The Knowledge Deficit: Closing the Shocking Education Gap for American Children*, New York, Doubleday, 2006, pp 37ff. with references to the literature.
- See for instance: William R. Johnson and Derek Neal, "Basic Skills and the Black-White Earnings Gap," in C. Jencks and M. Phillips, eds., *The Black-White test Score Gap*, Washington, DC, Brookings, 1998.
- ⁴ Isaac Kandel, "Prejudice the Garden Toward Roses?" republished in Wesley Null, Diane Ravitch, eds., *Forgotten Heroes of American Education*, Greenwich, Information Age Pub, 2006.

W(h)ither Liberal Education? A Modest Defense of Humanistic Schooling in the Twenty-first Century

David J. Ferrero

Senior program officer for the Bill and Melinda Gates Foundation and a former high school teacher

Introduction

The traditional liberal arts have been losing their voice over the last 20 years among the reform elites who shape public discourse and policy making about education. Liberal arts advocates have literally been dying off and their successors are few and marginal. Education professionals have always defined themselves explicitly against traditional models of learning as part of their effort to be recognized as scientific and innovative. But the waning of the liberal arts also reflects a broader triumph of instrumentalism, of schooling conceived primarily as a service commodity whose priority is to serve the economic interests of students and those they'll one day work for.

The situation is more complicated than that, however. Although liberal education has taken a back seat among advocates who look to schools to address perceived crises in economic development and social mobility, many educators and reformers do espouse ideas about the proper form and content of general education for American children. These advocates reject more traditional conceptions of the liberal arts, but they do aspire to provide all students with a K-12 education that goes beyond basic skills and workforce development to what's variously called *paideia*, bildung, or humanitas—that is, the forging of good persons through an education that is humanistic in both content and spirit. I believe the continued relevance and vitality of the traditional view have been unfairly denied in recent years. But I'm not looking for a fight. I think it is important to forge alliances among the various advocates for liberal learning that is grounded in some plausible conception of paideia. The pluralism among educators and reformers could be a good thing, provided that all reasonable approaches can be accommodated and nurtured so that all children have access to some form of liberal general education. Therefore, in my "modest" defense of traditional liberal arts education—which I define as sustained engagement with ideas, artifacts, persons, and events said to constitute a "Western tradition" or shared cultural heritage—I don't assert that this traditional view is superior to its rivals. Rather, I argue that people who are educated in the way I describe acquire important skills and knowledge, enjoy a legitimate form of the good life, and make distinctive contributions as thinkers and citizens in a pluralistic society.

In that spirit, I propose a new kind of liberal arts advocacy and weigh in on some of the policy questions raised by my analysis in light of the growing bipartisan discontent with the curricular narrowing attributed to state and federal policies that focus on reading and mathematics. I urge advocates and policy makers to broaden the reform agenda to adopt a more liberal vision and to develop a policy framework that holds schools accountable for teaching beyond the basics. I also urge innovations in policy that more effectively accommodate, channel, and support *all* educators who bring divergent, yet legitimate, convictions about the substance and form of liberal learning to their work. Finally, I close with some ideas about how to rejuvenate the beleaguered traditional view.

Wither Liberal Education?

In its most general application, the liberal arts—that is, formal academic studies that are intended to provide general skills and knowledge, as opposed to more specialized vocational skills—have dominated K–12 reform advocacy for the last quarter century and shows no sign of losing ground. If anything, the post–*Nation at Risk* era has witnessed an increase in the number of traditional academic subjects that students are required to take to graduate from high school. "College for all" is now the rallying cry among reformers of virtually all stripes. And nearly everyone concurs that the twenty-first-century economy requires all students to possess the kind of intellectual acumen that the liberal arts are supposed to develop. These trends reflect a certain consensus about the importance of a broad and rigorous education for all. This is an enormous improvement over the mid-twentieth-century reform efforts that gave us Life Adjustment education, back to basics, and a Sputnik-era quality push focused exclusively on the most intellectually gifted.

Yet, at its heart, the college-for-all consensus lacks that spirit of *paideia*. Two dominant preoccupations drive the current wave: national economic prosperity (excellence or competitiveness) and individual economic opportunity (equity or social justice). The dawn of the new knowledge economy, the argument goes, requires workers who are intellectually equipped to innovate, adapt, and solve complex problems in a rapidly changing and globally competitive world. National eco-

nomic preeminence therefore requires that all young people be educated to higher standards than ever before. These conditions likewise require that young adults acquire these skills to earn a decent living, because high-wage, low-skill manufacturing jobs are being outsourced to lower-wage competitors overseas. This trend is said to be illustrated by widening income gaps between those who earn a bachelor's degree and those who don't. By the turn of the century, these pressures were thought to be so acute that President George W. Bush declared education "the great civil rights issue of our time." The emphasis on national economic interests and individual opportunity reflects a powerful convergence among the concerns of business leaders, child and minority group advocates, and education professionals who dominate the education reform agenda.

Strictly speaking, liberal education has always existed in a certain tension with the economic development imperative. The emphasis on public schools as instruments of workforce development is legitimate and important, and all who are involved in schools or child welfare should support it. Nonetheless, the exclusive focus on the instrumental has occluded other dimensions of human development that liberal education strives to cultivate, such as citizen identity and competence, and individual capacity to live personally meaningful lives. From Aristotle through Mortimer Adler, liberal education has often been defined in explicit opposition to vocational education. The rhetorical move of claiming that the new knowledge economy has erased the distinction between college preparation, work preparation, and civics doesn't resolve the tension. It merely redefines college preparation as another species of vocational education. It is assuredly more enlightened than the vocational education of years past, insofar as it aims high for all young people, and it is more inclusive than the Sputnik-era focus on identifying and training the best and brightest. But, still, it is not a liberal vision for K–12 education.

For one thing, the current wave all but ignores the arts, humanities, history, and, literature. Like the mid-century reformers who after Sputnik looked anxiously to the Soviet Union as a national security threat, today's business reformers see China and India as threats to U.S. economic competitiveness. And so the race is on to outproduce these nations in the creation of scientists and engineers. Child and minority advocates are largely complicit in this, in part because of studies that have found that high school students who take more high-level math and science courses attend and complete college at substantially higher rates than those who don't.² And because these advocates' primary aim is to increase the number of racial minorities and low-

income students who earn higher education credentials, they lend politically progressive cachet to the math-science push. For both groups, arts and humanities can seem like a distraction from the real business of schools (except for those advocates who view them as a way to shore up the ethnic or racial identities of nonwhite students).

Equally prevalent is the allied groups' eschewal of general knowledge in favor of generic cognitive abilities such as literacy, higher-order thinking, creativity, and problem solving, and affective dispositions such as cooperativeness, enthusiasm for racial diversity, adaptability, and entrepreneurialism. For decades, traditionalist critics have mocked the education establishment for this. Less often noted by such critics is the degree to which this orientation reflects the articulated needs of modern business, where general cognitive and social skills are considered desirable irrespective of the particular goods or services a particular firm produces.³ In fact, today's professional and managerial elites pride themselves on their ability to apply process skills and tools broadly across industries in a rapidly changing competitive market-place. Hence, their shared enthusiasm with education professionals for cooperative project-based learning, in which teams of students are thought to develop valuable skills and attitudes in the context of projects that focus on real-world problems. The actual content of these problems is irrelevant, as long as it furnishes the right level of cognitive and cooperative challenge.

So the problem isn't simply the alleged anti-intellectualism of the education establishment and its espousal of education progressivism. Professional educators align broadly with business leaders and child and minority group advocates, forming a powerful triumvirate. These leaders enjoy tacit assent from the general public who, according to surveys, rank the humanities and advanced subject matter knowledge low when questioned about their priorities for public schools, even while endorsing higher standards.⁴ And it practically goes without saying that today's popular culture discourages anything arduous or intellectually rigorous that doesn't ensure a near-term material payoff. In short, if a liberal arts education comprises both general intellectual skills *and* general knowledge, and espouses humanizing aspirations beyond workplace competence and material prosperity, its outlook is bleak.

Whither Liberal Education?

I believe instrumentalism, vocationalism, and credentialism in the mainstream reform discourse are real and dominant. The more thoughtful among those I've labeled "business reformers," "child and minority advocates," and "education profes-

sionals," however, would object to my implication that they advocate a lesser form of schooling for young people. The content-neutral meta-skills they espouse are intended to benefit children in all aspects of their lives, not just work. Thus, as they see it, they don't so much eschew liberal learning as espouse another conception of it. They also regard their conceptions as improvements over traditional notions—that is, as more up to date, more forward looking, and more attuned to social and economic realities. Theirs is a liberal education that embraces general skills and dispositions while rejecting general knowledge.

Further complicating things is an array of activist academicians, minority and multicultural advocates, and education professionals who *do* take seriously the idea of general knowledge, but who seek to redefine its content and scope. These advocates enjoy less influence among policy elites but wield considerable influence in schools and colleges. The rival conceptions of liberal learning generated by all these constituencies can be roughly classified under three headings: process inquiry, activist academic, and cosmopolitan. Although these diverse conceptions of liberal learning actively seek to supplant the conception of liberal learning I term traditional humanism, they nonetheless nurture visions of humanistic education in the spirit of *paideia*, which is otherwise absent in the mainstream reform discourse.

Process Inquiry. Consider again the basic agenda of the business leaders and educational professionals: promoting the skills of productive workers in a dynamic, knowledge-based economy—such skills as problem solving, creativity, cooperativeness, and adaptability. Although usually promoted as economic survival tools for the twenty-first century, they are nonetheless general qualities of mind and heart deemed broadly applicable to life as a citizen and private person—hence, the averred convergence of college, work, and citizenship skills. Although education professionals give more weight to social and civic interactions over workplace interactions, while putting more emphasis on cultural issues and each child's unique talents and dispositions, they basically share the business advocates' worldview and preferred pedagogies. Both groups place great importance on problem solving, real-world applications, and project-based learning, sometimes under the general heading of inquiry.

The focus on inquiry elevates disciplinary (and interdisciplinary) methods over content. The purest example of this view might be provided by Howard Gardner, who argues that students should study small representative topics in exhaustive depth to gain firsthand experience with disciplinary methods of inquiry. He proposes, for example, that a history class spend an entire term exhaustively studying a single historical event such as

the Holocaust, sifting through primary and secondary sources, and then learning to analyze, synthesize, evaluate, and interpret them the way a working historian would. What's important from this perspective isn't that students study the Holocaust. They could as easily study the Treaty of Westphalia, the Chicago World's Fair of 1893, or a fabled murder trial in a school's community. What is important is that students acquire the tools and habits of a historian. Likewise, proponents of interdisciplinary project-based curricula consider traditional academic content and subject matter to be an impediment to helping young people acquire broadly applicable intellectual skills and social virtues. Thus, while proponents of process inquiry eschew general knowledge, their more sophisticated enthusiasts can hardly be said to be anti-intellectual or narrowly vocational.

Activist Academicism. Activist academicians often invoke trends in the practice of disciplinary research itself as another reason for displacing traditional liberal arts. For example, labor history, ethnic studies, women's studies, media studies, postcolonial studies, ethnomathematics, critical theory, microhistory, and so on are said to represent cutting-edge developments in their respective fields and should therefore be incorporated into K–12 curricula to keep those curricula up to date, as one would do in the physical sciences. Activist academicism often comes wrapped in a mantle of social justice and social democracy because of its emphasis on people, events, cultures, and viewpoints generally sidelined in curricula that focus on great accomplishments in culture, science, war, or statecraft. Although the latter argument sometimes smacks of a self-righteous moralizing at odds with the spirit of liberal learning, a lot of important and high-quality work has been done in these fields that merits curricular inclusion, even if the extent and terms of that inclusion are subject to intense debate ⁶

Cosmopolitanism. The cosmopolitan view, as articulated by thinkers such as Martha Nussbaum and Kwame Anthony Appiah, is that students should be exposed to as full a range of different civilizations, cultures, and artistic and intellectual traditions as possible to help students expand cognitive horizons, recognize both the diversity of human communities and our shared essential humanness, and better navigate a world increasingly diasporic and interconnected—that is, to become "citizens of the world." The movement known as Big History or New World History—history that examines broad global megatrends over time in areas such as war, migrations, economic exchange, disease, and technology—represents one type of cosmopolitan education, as do area studies and certain kinds of multicultural education.8 Of

the positions I've described thus far, cosmopolitanism comes closest to embracing the broad liberal arts ideal, because it most explicitly speaks to the humanizing function of education while acknowledging the role that general knowledge, rightly taught, plays in it. Cosmopolitanism enjoys favor among certain business leaders, as well, who view cultural and linguistic knowledge of emerging economies in the Eastern and Southern hemispheres as advantageous for American companies who employ graduates of U.S. schools and colleges. For these reasons, I find cosmopolitanism the most formidable rival to traditional humanism.

Traditional Humanism. Traditional humanism embraces an approach to liberal learning unabashedly grounded in traditions of knowledge, thought, artistic expression, argumentation, and moral reasoning as they have evolved from ancient Mediterranean civilizations through contemporary North Atlantic societies. This approach lays great stress on mastery of the subject matter disciplines conceived not only as tools of inquiry but also as repositories of accumulated knowledge, both of which it is schools' responsibility to transmit to students through knowledgeable and authoritative teachers who possess as much passion for their subjects as their students. It views the acquisition of traditional forms of knowledge as an aid, rather than an impediment, to critical inquiry and innovation, and views disciplined selfmastery and internalization of formal rules as precursors to personal autonomy and creativity. While embracing new knowledge, global perspectives, and important contributions by other world civilizations past and present, it nonetheless focuses on the history, accomplishments, and traditions of Western civilization for the simple reason that they are most relevant for helping those who live in modern Western societies understand both their society and themselves.

Which of these conceptions of liberal learning should prevail? The question is meaningless and self-defeating. Meaningless because no objective measure exists by which one can dispositively rank their merit. Self-defeating because treating curriculum policy as a zero-sum game leads to divisive rancor that undermines credibility with policy makers and the public, while driving curriculum policy to lowest-common-denominator compromises that leave everyone unhappy. So before I sketch out some ideas for how rival advocates might work together more effectively for innovative policy solutions, I would like to briefly model a form of advocacy that eschews the rancor that has characterized curriculum debates over the past 100 years in favor of a model that respects rival views without compromising one's own convictions.

A Modest Defense of the Traditional Liberal Arts in the Twenty-first Century

From the point of view of the rival conceptions of liberal learning I've sketched above, traditional humanism has almost everything going against it. Traditional humanists regard traditions as constitutive of both present and future. They therefore look backward to look forward, and they observe continuity and preservation underneath change and innovation. They are "provincial" in their focus on the history and intellectual traditions of what has been aptly described as an Asian peninsula¹⁰—that is, Europe, or the continent formerly known as Christendom. Yet their preferred subject matter is often distant from students' immediate experiences, interests, or countries of origin. In this sense, it is remote, alien, and inauthentic. Furthermore, they engage their subject matter in ways that are out of favor among mainstream reformers. Much of what traditional humanists espouse educationally is, strictly speaking, useless, possessing no straightforward, immediate applicability to productive work.¹¹ Worse yet, it is elitist, having historically been developed, transmitted, and evolved through society's upper strata. In this respect traditional humanism is more (small r) republican than (small d) democratic, and thus carries with it a whiff of aristocratic privilege.

It is unsurprising then that the most eloquent and esteemed advocates of schooling in the traditional humanist tradition have been dying off. Robert Hutchins, Mortimer Adler, Jacques Maritain, and Paul Gagnon are all dead. Jacques Barzun is in his 90s. The generation after these advocates, which includes E.D. Hirsch, Jr., and Diane Ravitch, is nearing retirement. The Council for Basic Education (CBE), which was the last nonpartisan organization to advance the cause of the traditional liberal arts, met its demise in 2004. Although these advocates put their energies into advocating the stuff and spirit of general education in the liberal arts tradition, they had more in common with progressive critics of conventional schooling than people realize. Barzun loathed standardized multiple-choice tests, arguing that "choosing the readymade instead of producing the fresh idea ... breaks up the unity of what has been learned and isolates the pieces," thereby inhibiting students' efforts to discern and evaluate patterns in what they learn.¹² Adler and Gagnon subscribed to versions of the progressive admonition that "less is more," that fewer topics studied more deeply was better than a light dusting over many.¹³ Maritain warned against an excess of "mechanical drill" that puts "the intellect of the student to sleep in ready-made formulas, which he accepts and memorizes without engaging his own self in the grasping of what they supposedly convey to him."14 In fact, it is striking how frequently one finds in their

writings strong echoes of their progressive contemporaries with respect to the civic, ethical, and cognitive aims of schooling, and even in some respects the means of getting there. ¹⁵ Yet they saw authentic engagement with formal traditions of thought and culture as humanizing and liberating, and with the exception of Adler, they did not let their focus on European history and high culture occlude recognition of other civilizations for their achievements or their contributions to Western development.

Is the liberal arts tradition as understood by Barzun and his contemporaries dying a natural death? Are cosmopolitan multiculturalism and its more process inquiry—centered rivals the successors, the latest example of educational aims and methods evolving to meet the needs of an ever-changing society? Such is the common refrain. Needless to say, I am unconvinced. And even if I have too much respect for rival views of liberal learning to claim that the traditional humanist conception is the only legitimate conception, I believe it remains a legitimate and vibrant approach, the loss of which would deprive contemporary society of important resources for collective self-understanding and improvement, moral and political deliberation, and intellectual and aesthetic cultivation. And so, even if I can't claim that traditional humanism represents the best form of liberal education for all, I do believe it is an essential option.

I have no new arguments to make on its behalf, only old ones that I continue to find persuasive. For starters, present arrangements are partially and inescapably shaped by the past. Pretending otherwise is a form of denial that only strengthens the past's grip over us by rendering its influences invisible and inarticulate. Furthermore, although it is easy to mock Adler's and Hutchins's notion of a "Great Conversation" among thinkers and artists taking place across centuries, that is in fact how intellectual, moral, aesthetic, and social traditions are created and defined. When historians trace a genealogy of formal thought about government from ancient Greece and Rome to fifteenth-century Florence, and another from Germanic tribal governance and Magna Carta to British liberalism, and trace both to Enlightenment innovations leading to the American and French Revolutions, which, in turn, continue to evolve through Romanticism and modernism to give shape to modern conceptions of democracy, rights, and freedom, they aren't just making up these connections. The debts to past thinkers were consciously acknowledged by each innovating generation (often by way of rejection), and their manifestations in the present exert powerful and pervasive influence over people's lives today, furnishing the terms for contemporary reflections on what makes for a good society, just polity, and ethical life—including reflections leading to oppositional perspectives such as libertarianism, multiculturalism, fundamentalism, and feminism. To argue that students should study these traditions and their histories isn't to gainsay the value in knowing that other civilizations have exhibited, at one time or another, similar insights about government, tolerance, or the status of women. It's just that the comparative perspective does nothing to diminish the importance of knowing the history of social, philosophical, and political thought as it evolved within *this* civilization.

The same pertains to the history of cultural production in the arts and humanities. It has been demonstrated time and again by scholars that so-called canons of great works are to some degree post hoc constructions that change as times change. 16 Shakespeare was canonized by the Romantics 200 years after his death. Cicero is rarely taught any more. Herman Melville was rescued from obscurity by twentieth-century Americanists consciously seeking to identify an American character through literature. And so on. Nonetheless, over time, these historically conditioned shifts constitute the traditions that today's most ambitious and self-consciously innovative artists, intellectuals, and activists seek to transform through their own contributions. This echoes a point oft-repeated by the most sensible defenders of high cultural traditions: that, far from representing some fixed, timeless consensus about the True, the Beautiful, and the Good, they reflect ceaseless conflict and innovation over time in pursuit of the True, the Beautiful, and the Good. Canonical traditions are formed, not negated, by argument and innovation over time. That's what the modern traditional humanist believes is valuable for young people to know, as a means of orienting themselves in both past and present, honing their capacity for moral and critical reasoning, and cultivating their aesthetic sensibilities through engagement with models of excellence. Today's innovations in thought and culture are important to the traditional humanist, but they are important as the most recent innovations within a tradition, not as that tradition's overthrow.¹⁷

For these reasons and others I continue to believe in a traditional humanist education focused on broad and deep engagement in the historical development and high cultural traditions of what I'm not afraid to call Western Civilization, capital letters and all. Such an education equips students with ways of apprehending and being in the world that no other education can provide. I could press the argument further and talk about traditional humanism's utility as a vehicle for the intellectual skills and social virtues desired by mainstream reformers, and for getting into college. I can also point to a host of existence proofs testifying to the ongoing vitality of traditional humanist scholarship and education. Anyone who reads the *New York Review of Books*

or spends time in serious bookstores, for example, can observe that scholarship in the traditions I've been talking about is going strong, which suggests that somewhere out there are people who recognize its value. Likewise, there are schools and colleges dotted around the country that embody the traditional humanist ideal in one form or another. There are Core Knowledge elementary schools seeking to lay the foundations for later humanistic studies. International Baccalaureate programs pick up where Core Knowledge leaves off. A handful of charter high schools, such as those created by Civitas Schools in partnership with the Chicago Charter School Foundation, blend the best of traditional humanist education with innovations that keep it fresh and relevant for their urban student populations. The Clemente Course in the Humanities, founded by Earl Shorris, an adult education program for low-income high school dropouts, does an admirable job introducing its students to traditional philosophy, logic, rhetoric, literature, and history. Core Knowledge, Civitas, and Clemente prove not only that traditional humanism can be vibrant and innovative, but also that it can motivate and inspire young people from diverse and disadvantaged backgrounds. Finally, a few remaining college programs continue to take the idea of general learning seriously, such as St. John's College in Maryland and Shimer College in Illinois.

But similar claims are legitimately made on behalf of other models of liberal learning. I am dissatisfied with these rivals because I believe they occlude knowledge and ways of knowing that I've tried to suggest carry considerable social, civic, and personal value. But the traditional model occludes some things, too. All curricula implemented in finite time with finite resources by finite individuals will have to make decisions about what to include—and what, inevitably, to exclude—based on certain governing assumptions and priorities that render any general curriculum always and inevitably incomplete. Because there is profound disagreement about what to include, exclude, emphasize, deemphasize, and why, I recognize that not everyone will subscribe to the model of traditional humanism that I have sketched. Therefore, although I believe that all schools should be required to provide all students with a liberal K–12 education, I would be content if only some of them were traditional in the ways I describe.

Some might nonetheless wonder whether what I have described as rival views aren't actually complementary parts of a more comprehensive whole. After all, few rivals categorically deny that study of the Western tradition ought to be included in any conception of liberal education, and few traditional humanists deny the importance of critical interrogation of that tradition or the sympathetic exposure to other

traditions. One of the hallmarks of Western intellectual and artistic traditions, in fact, has been their cosmopolitan curiosity about other cultures and incorporation of their insights and accomplishments into the Great Conversation. To foreclose such cross-cultural exploration would be to deny an important aspect of the tradition, as well as an important source of its vitality. Nor would the sensible humanist of any stripe deny that mathematics and science are an indispensable part of any liberal arts education. Any sensibly conceived liberal arts curriculum will in fact include elements that everyone can applaud.

But the devil is in the details. For example, because Western history and traditions produced many of the most salient features of modern life around the globe—and gave rise to the perspectives and priorities of Western businessmen, cosmopolitans, education professionals, and activist academicians—I might argue that a liberal arts curriculum should be unabashedly Eurocentric. A cosmopolitan proponent of New World History would beg to differ, making an intuitively compelling case that a global perspective should dominate. In creating and implementing a coherent curriculum, one approach will have to serve as the anchor and set the terms of inclusion and organization. This is where the trouble starts.

Therein lies the problem for policy and practice in a system of public schools in a society—and the education profession—characterized by assertive pluralism: how to accommodate reasonable differences among sophisticated and well-intentioned educators without watering down everyone's model to the incoherent muddle that characterizes K–12 curriculum today. Fortunately, the introduction of charter schools and other forms of public school choice over the last 15 years has presented new possibilities. Entrepreneurial educators with strong education convictions and deep concern for students and democracy have demonstrated that there really are "multiple pathways" to becoming a reflective, productive, and empowered adult. As long as we can figure out how to craft policies that ensure that all children are schooled under some cogent and defensible conception of liberal learning, we can let a dozen flowers bloom. Done right, such policies could harness diverse commitments in pursuit of broadly shared ends.

The time is ripe for a multipartisan commitment to schooling that goes beyond the instrumentalist basics. The years 2004–07 witnessed growing disenchantment with federal and state policies that require little of schools and students beyond basic skills in math and reading, policies that exclude those humanistic dimensions of education that motivate teachers and inspire students. There seems to

be a nascent hunger for schools to do something more than help children read and compute and obtain a credential that will land them a lucrative job. That this hunger is shared by advocates across political and pedagogical continua either means we're about to witness a resurgence in the internecine wrangling that has characterized curriculum policy over the last century, or that combatants will forge a rapprochement on behalf of the greater good. I hope my gesture toward modesty here can set a tone that favors rapprochement.

Implications for Policy and Advocacy

In the preceding sections I made three distinct claims: (1) mainstream reform advocacy and policy making seriously undervalue liberal learning and the noneconomic goals of *paideia*, *bildung*, or *humanitas* for which liberal educators strive; (2) there nonetheless exists a cacophony of competing views about the proper means and ends of schooling, many of which could be aptly characterized as "liberal" in that they share certain broad aspirations for *paideia* even as they disagree about its proper form and content; and (3) more traditional forms of liberal learning, which I termed traditional humanist, deserve more generous consideration in theory and more robust instantiation in practice. Taking all three claims seriously implies certain innovations in policy pertaining to standards, assessment, and accountability along with a new spirit of tolerance among those who find the current focus on instrumentalist basics wanting.

I suspect that convincing education's dominant voices that all children should have a liberal basic education of some kind should be easy, if done with due respect for the goals of economic prosperity and individual economic opportunity. One common strategy for doing this has been to demonstrate the value of a liberal education as the best vehicle for inculcating "21st century workplace skills." Advocates as diverse as E.D. Hirsch, Jr., and Robert J. Marzano have combined research and theory in defense of the value of general knowledge for helping children develop critical skills. Advocates of arts education have pursued an aggressive research agenda designed to demonstrate the value of the arts to basic competencies like reading and math. That literature is voluminous and, in fact, shades readily into the research enlisted on behalf of the college-for-all coalition described above. These arguments can be brought to the foreground.

I don't think this line of argument is sufficient on its own, however, because it cedes too much to the instrumentalist. *Paideia* is broader, comprising more ambitious aspirations for students and society. It seeks to shape civic and personal character, non-

productive habits and pleasures, civic values and social dispositions, and intellectual capacities beyond basic reading and computation. It looks beyond workplace competence toward some notion of the Good Life, which can sound squishy to the policy maker whose gaze is fixed squarely on job growth and the gross domestic product. Finding a language in which to convey the importance of these things won't be easy. But we need to try.

One good start would be to drop the oppositional posturing. Too often in recent years, pleas on behalf of humanistic public education have tended to be employed against basic skills, standards, tests, and the role they play in holding schools and students accountable to instrumentalist-economic imperatives. This is a bad idea. For one, it's bound to fail. Political leaders, business leaders, citizens, and parents demand that schools teach basic skills and desire metrics that are clear, understandable, valid, reliable, and administratively manageable. So I don't see standardized tests pegged to broad-gauge basics like math and reading going away any time soon. For another, it needs to be remembered that the work of humanists, scientists, artists, and educators all depend crucially on economic prosperity to support their pursuits. The instrumentalist-economic imperative is foundational to any system of publicly funded schools. Earlier I admitted the tensions between liberal and vocational conceptions of learning. But tensions can be managed. Claims to the contrary notwithstanding, there's no inherent opposition between basic skills and higher-order skills, public accountability and professional collegiality, or standardized tests and the joy of learning and teaching. Most children educated in a school where serious educators successfully provide a rigorous and meaningful course of study will be able to pass a standardized test of basic skills.20

Nonetheless, teachers will teach what they're going to be held accountable for, and they're sloughing off arts, music, and anything else not tested to ensure that they meet adequate yearly progress requirements in basic skills under No Child Left Behind (NCLB). So even if the critics are wrong in principle, they are right in practice. One understandable response has been to call for more robust standards and broader accountability systems. This response brings its own perils, however, because of dissension found among disciples of different pedagogical doctrines. For those unacquainted with the century-long Thirty Years' War among proponents of different education creeds, as recounted by historians such as Herbert Kliebard and Diane Ravitch, the experience of the 1990s ought to serve as a cautionary tale. No one who believes passionately in the importance of a certain subject matter, pedagogy, or assessment method will stand idly by while it gets left out of a state or national policy. Whatever

the flaws of an NCLB-like focus on the minimal basics, it at least has the virtue of skirting some of the rancor that more ambitious efforts ignite.

What I would like to see proposed is an accountability system for public schools that builds on NCLB's parsimony, one that ensures that schools do more than teach the basics without attempting to determine the content or format of assessments used to gauge their success. This likely will require some hybrid of the various schemes promoted by different education advocates over the years to protect reasonable diversity while ensuring that the broader and less easily measured aims of schooling don't wither. A "tight-loose" framework calibrated to balance *pluribus* and *unum* in education practice, such as the one I propose on page 131, is needed.

A system of standards, assessment, and accountability that accommodates rival visions of liberal learning while meeting the needs of policy makers, employers, and the public would require and enable a rapprochement among proponents of rival visions of liberal learning. It will require a coalition among these parties to advocate for this system with a strong collective voice. Once adopted, it ought to create conditions for peaceful coexistence and interfaith cooperation. This could be an historic opportunity, as rival pedagogues historically have spent more energy maligning each other than pursuing common aims. Such attacks have handicapped cooperative efforts on behalf of students. Perhaps this divisiveness was inevitable back when everyone was fighting to define the one best education for all, but in an era of choice, charters, and the near-universal belief in diversity and "multiple pathways," it need not be.

One thing we need, then, is a "big tent" organization—an interfaith council, if you will—of educators, academics, and advocates who are committed to some recognizable form of liberal education. Such an organization might start by drafting a statement of broad beliefs regarding the aims, means, and priorities of schooling under an inclusive definition of liberal learning. It could then map and describe more carefully and thoroughly the different forms that liberal learning can take before moving on to the hard work of hammering out a policy framework that can allow them all to thrive. This would be an appropriate mission for a revived CBE.

I would like to see a more prominent and central role in this effort for traditional humanists, however, and would like to close with some thoughts aimed specifically at them.

The demise of the original CBE in 2004 left liberal arts advocacy without a nonpartisan, nationally recognized voice for traditional humanism. We need a new one. A revived CBE might serve this purpose as well. Whatever the auspices, such an organization could do three things: (1) resuscitate and reposition traditional human-

ism in K–12 (or K–16) education, (2) seed new networks of like-minded educators to forge a new professional community, and (3) model the kind of confident composure of a movement that knows what it stands for and understands its place in the world.

Traditional liberal arts advocacy desperately needs fresh voices and a new spirit. Currently, the most prominent organizations advocating on behalf of liberal education are the National Association of Scholars, the Intercollegiate Studies Institute, the American Association of Liberal Education, and the Heartland Institute. In addition to being either conservative or libertarian, these groups tend to sound strident and reactionary. The appeal of traditional humanism to certain kinds of conservatives (and the appeal of some of its rivals to certain kinds of progressives) has a long history. 25 But traditional humanism has just as often inspired social and political progressives who espouse communitarian ideals and a strong commitment to social justice. The Jesuits—and Catholic schools in general—furnish a more widely known example. Earl Shorris, founder of the Clemente Course, grounds his program in a neo-Aristotelian theory of citizenship that combines knowledge and action into a model of citizen empowerment.²⁶ E.D. Hirsch, Jr., is an avowed liberal democrat, and Paul Gagnon was one of the most gentle, reasonable, and nuanced education thinkers of my lifetime. One of the virtues of the kind of education I've defended is that it rewards those who acquire it with the ability to see through various partisan positions, unpack them, and assess them dispassionately. It aims to produce thoughtful citizens who can see merit in all sides of an argument, and who continually revisit and revise their own views in light of new evidence and ongoing reflection. Traditional humanists could do a better job of highlighting and modeling this approach.

Another critical activity of a new CBE would be to identify and network likeminded educators. Advocates of other education perspectives depend on networks to advance their agendas, exchange ideas, and share resources. I suspect that every large high school and perhaps one in three elementary and middle schools in the country has at least one teacher with a passion for the traditional liberal arts. That represents a core of thousands of professional educators laboring in isolation who are dissatisfied with the national subject matter councils and other professional associations currently available to them. Tap half of them, and you've got the beginnings of a new and potentially powerful professional network.²⁷

We need to recruit new teachers into that network as well. The current focus on recruiting urban Ivy League missionaries and burnt-out mid-career engineers into teaching leaves unrecruited thousands of graduates of small liberal arts colleges. These

graduates might be persuaded to become teachers if given a training that respects rather than denigrates their intellectual passions. The Hutchins Graduate Institute's Core Knowledge–based teacher education program at Shimer College offers one such model. We need more.

Finally, I'd like to see this new organization broaden the appeal of the liberal arts. The generation of Barzun, which included such luminaries as Clifton Fadiman, Gilbert Highet, and Charles Van Doren, among others, excelled at this. Through popular books, book clubs, radio, and television, they eschewed highbrow snobbery and made the fruits of higher learning engaging and accessible to a broad audience.²⁸ We need to bring that same spirit to our curricula and professional advocacy. Although certain advocates and organizations have grown more strident and selfmarginalizing, others have given too much away to appease criticisms based on criteria of gender and ethnic representation, U.S. demographic trends, global geopolitics, postcolonial restitution, and all the rest. Some adaptations are always necessary, but their standards of excellence (of thought, aesthetic merit, and so on) and the particular stories they embody about the evolution of the civilization that produced modern Western societies are exactly what makes the traditional liberal arts what they are. Those standards, those stories, still hold up. If we can find that zone of quiet self-confidence that lies between the extremes of guilty self-loathing and resentful dogmatism, we will find our audience among students, families, fellow educators, and even the general public.

Endnotes

- ¹ Robert Perkins, Brian Kleiner, Stephan Roey, and Janis Brown (Project Officer: Janis Brown), The High School Transcript Study: A Decade of Change in Curricula and Achievement, 1990-2000. NCES 200-455, U.S. Department of Education, National Center for Education Statistics, Washington, D.C.
- ² Clifford Adelman, *The Toolbox Revisited: Paths to Degree Completion from High School through College* (Washington, D.C.: U.S. Department of Education, 2006).
- ³ A good recent articulation of this view comes from the Partnership for 21st Century Skills. *Are They Really Ready to Work? Employers' Perspectives on the Basic Knowledge and Applied Skills of New Entrants to the 21st Century Workforce* (Tuscon, AZ: Partnership for 21st Century Skills, 2006). The executive summary is quite pointed about the supposed need to replace "basic skills" with "21st century skills."
- ⁴ See Michael Hamell Remaley and Claudia Feurey, *Assignment Incomplete: The Unfinished Business of School Reform* (New York: Public Agenda, 1995); Richard Rothstein and Rebecca Jacobson, "The Goals of Education," *Phi Delta Kappan* (December 2006): 264–272.
- ⁵ Howard Gardner, *The Disciplined Mind: Beyond Facts and Tests, the K-12 Education that Every Child Deserves* (New York: Penguin, 2000). See especially Chapter 8, "Close Looks."

- The feud between Gary Nash and Lynne Cheney over the American history standards-setting project of the 1990s captured the scope and intensity of the conflict over the terms and extent of inclusion. See Nash's *History on Trial: Culture Wars and the Teaching of the Past* (New York: Vintage, 2000), which was written with Charlotte Crabtree and Ross Dunn; and Cheney's, *Telling the Truth* (New York: Touchstone, 1996).
- Martha Nussbaum, Cultivating Humanity: A Classical Defense of Reform in Liberal Education. (Cambridge, MA: Harvard University Press, 1998); Kwame Anthony Appiah, Cosmopolitanism: Ethics in a World of Strangers (New York: W. W. Norton, 2006). Appiah's book doesn't focus on education per se, but is a clear and succinct theoretical statement of the worldview.
- ⁸ For a good introduction to the various forms of world history education, see Patrick Manning, *Navigating World History: Historians Create a Global Past* (New York: Palgrave, 2003).
- See College Learning for the New Global Century, A Report from the National Leadership Council for Liberal Education and America's Promise, Association of American Colleges and University, 2007. See also Walter Russell Mead, *The State of State World History Standards*, a report from the Thomas B. Fordham Institute, 2006.
- ¹⁰ Fernand Braudel, A History of Civilizations, trans. Richard Mayne (New York: Allen Lane, 1994), 304.
- Not that they don't believe in "relevance." They do. It's just not a kind of relevance that is synonymous with "practical" or "immediate." It's a conception of relevance that can admit knowledge of, say, the Carolingian Renaissance or the publication of *Dialogue Concerning the Two Chief World Systems* if taught well and with due regard for their most salient contributions to modern conditions and understandings.
- Jacques Barzun, "Reasons to De-Test Schools." Reprinted in Begin Here: The Forgotten Conditions of Teaching and Learning (Chicago: University of Chicago Press, 1991), 34–35.
- Mortimer Adler, The Paideia Proposal: An Educational Manifesto (New York: Touchstone, 1998).
 (reprint); Paul Gagnon, "What Should Children Learn?" Atlantic Monthly (December 1995), 65–78.
- ¹⁴ Jacques Maritain, *The Education of Man: The Educational Philosophy of Jacques Maritain*, eds. Donald and Idella Gallagher (Garden City, NY: Doubleday, 1962).
- This, to my mind, is partly what distinguishes them from more familiar proponents of education traditionalism, such as Lynne Cheney and William J. Bennett, assorted "back-to-basics" organizations such as Mathematically Correct, and many religionists and homeschoolers.
- See, for example, John Guillory, Cultural Capital: The Problem of Literary Canon Formation (Chicago: University of Chicago Press, 1995); or Gerald Graff, Professing Literature: An Institutional History (Chicago: University of Chicago Press, 1989). Characteristically, Barzun himself makes the point most succinctly in "Of What Use the Classics Today," reprinted in Begin Here.
- Taylor, John Rawls, and Michael Sandel—two social democrats, one a Hegelian, the other a Kantian, and one neo-Aristotelian communitarian—whose different philosophical lenses have led them to similar insights about the role of canonical traditions in shaping thought and the value of being aware of how they do so. I have been similarly influenced by Edward Shils, a sociologist who drew similar conclusions about the inescapability of traditions from the very different perspective of his discipline. See *Traditions* (Chicago: University of Chicago Press, 1981). I've drawn inspiration from the likes of Gagnon, Barzun, Adler, and E.D. Hirsch, as well, although I have quibbles with all of them. And I've always found attractive Neil Postman's "thermostatic" theory of educa-

- tion, which holds that schools should not slavishly ape trends in contemporary culture but self-consciously focus on things students are unlikely to be exposed to elsewhere. See *Teaching as a Conserving Activity* (New York: Delacorte Press, 1979).
- ¹⁸ Again, see Hirsch, *Knowledge Deficit*. Also see Robert J. Marzano, *Building Background Knowledge* for Academic Achievement: Research on What Works in Schools (Alexandria, VA: ASCD Press, 2004).
- ¹⁹ To take one example chosen at random, see Arthur D. Elfland, *Art and Cognition: Integrating the Visual Arts in the Curriculum* (New York: Teachers College Press, 2002).
- There is some research to back this assertion. See, for example, Fred M. Newmann, Anthony S. Bryk, and Jenny Nagaoka, "Authentic Intellectual Work and Standardized Tests: Conflict or Coexistence?" A report of the Consortium on Chicago School Research, 2001.
- ²¹ I confess that I believe at least part of this problem is caused by the separation of skills and content so predominant in education theory and practice. If content-rich instruction in arts, humanities, and science were understood as part and parcel of effective skills instruction, rather than as a luxury or distraction, the problem might be greatly mitigated. Again, I refer to Hirsch, Marzano, and the literature on arts and cognition.
- This volume and the conference that spawned it, along with other efforts by the Thomas B. Fordham Institute to resuscitate more robust national standards, furnish an important example from the center-right. Richard Rothstein's efforts to broaden accountability regimes to comprise traditional, nonacademic goals for public schools, such as good citizenship and physical fitness, furnishes one from the center-left. See, for example, "The Goals of Education," *Phi Delta Kappan* (December 2005), co-authored with Rebecca Jacobsen.
- ²³ See Herbert Kliebard, *The Struggle for the American Curriculum, 1893-1958*, 3rd ed. (New York: Routledge, 2004); Diane Ravitch, *Left Back: A Century of Battles Over School Reform* (New York: Simon & Schuster, 2001).
- See again, Nash and Crabtree, and Cheney, on the national history standards effort. For a more limited account of the English standards-setting effort, see my "The Culture Wars Go to Washington: Ideology, Realpolitick, and the NCTE English Language Arts Standards," *Journal of Thought* (Spring 1999).
- This observation points to a problem I've only obliquely acknowledged thus far: the tendency for education advocacy, including curriculum advocacy, to serve partisan political or ideological ends. And so, as foils to the organizations I just mentioned, there are organizations such as the National Council of Teachers of English, the Coalition of Essential Schools, Educators for Social Responsibility, and the National Association for Multicultural Education that yoke curriculum and pedagogy to various forms of social democratic or ethnonationalist causes. There's a long history of this sort of thing stretching back at least two centuries. I have to admit that this presents complications for everything I have to say in this section.
- Earl Shorris, Riches for the Poor: The Clemente Course in the Humanities (New York: WW Norton, 2000). In light of the traditionalist's reputation for Eurocentric triumphalism, it's worth noting that Shorris is also a scholar of aboriginal cultures and staunch advocate of indigenous language preservation.
- The National Council for History Education, International Baccalaureate, and Core Knowledge may furnish serviceable examples or starting points.
- ²⁸ See Joan Shelley Rubin, "The Scholar and the World: Academic Humanists and General Readers in Postwar America," in *The Humanities and the Dynamics of Inclusion Since World War II*, ed. David Hollinger (Baltimore: Johns Hopkins University Press, 2006).

Testing, Learning, and Teaching: The Effects of Test-based Accountability on Student Achievement and Instructional Time in Core Academic Subjects

Martin West

Assistant professor of education, political science, and public policy at Brown University

Is what gets tested what gets taught? Does what gets tested get learned? These questions go to the heart of debates over the national push toward test-based accountability in public education. Proponents argue that the regular testing of students, combined with meaningful accountability for results, will align instruction with curricular standards and motivate students and teachers to work harder. This logic appears to be widely accepted among the American public, who consistently express support for the use of testing as a strategy to improve student achievement.¹

But test-based accountability is not without its critics. Some prominent education scholars assert that a heavy reliance on testing distorts instruction and undermines authentic learning. What gets tested, goes the argument, gets taught badly—especially if the results have meaningful consequences for schools, educators, or students. Moreover, the introduction of extrinsic rewards and sanctions for students may devalue learning and discourage especially those students who are most in need of improvement. If such criticisms are valid, test-based accountability will fail to improve student achievement even in tested subjects.²

A second line of criticism, however, focuses instead on the specific accountability systems currently in use in most states—systems shaped largely by the mandates of the federal No Child Left Behind (NCLB) Act. Enacted in 2002, NCLB requires states to test students annually in grades three through eight (and once in high school) in reading and math. Starting next year, states must also test students in science, but these tests need only be administered in three grades and do not have to be used to determine whether schools are making "adequate yearly progress." Other core subjects, including history, are ignored altogether. Some observers fear that, even if NCLB can be expected to improve reading and math skills, these gains will come at the expense of performance in subjects that go untested and therefore will go untaught.

Concern over the possibility of curricular narrowing under NCLB intensified last March, when a front-page article in the New York Times asserted that "thousands of schools across the nation are responding to the reading and math requirements laid out in No Child Left Behind...by reducing class time spent on other subjects and, for some low-proficiency students, eliminating it." Readers of the Center on Education Policy (CEP) study cited in the article may have been surprised to find that only onethird of the district officials surveyed during the 2005-06 school year reported that elementary schools had reduced time spent on social studies or science either "somewhat" or "to a great extent," while just over one-fifth said the same about art and music.4 As Craig Jerald pointed out in a Center for Comprehensive School Reform and Improvement policy brief, the study suggested an "erosion—rather than a decimation—of subjects outside of reading and mathematics."5 Yet the story seemed to tap into widespread fears about the consequences of a national accountability system based solely on a few subjects. Media reports of schools abandoning art, music, and physical education to focus on reading and math proliferated. In June, renowned historian David McCullough took his concerns to Congress, testifying that "because of the No Child Left Behind program, sadly, history is being put on the back burner or taken off the stove altogether in many schools, if not most schools, with the argument that we have to concentrate on reading and mathematics and science."6

McCullough's account of a narrowing curriculum sounds plausible, but is it true? If so, should policy makers abandon the entire accountability enterprise? Or is NCLB worth saving—perhaps by mandating tests in additional subjects?

Unfortunately, solid data to address these questions are scarce. Although the proliferation of state and federal testing programs has yielded an abundance of information about what American students know, our knowledge of what they are taught remains fragmentary and incomplete. Below, I present new information on trends between 1988 and 2004 in the amount of time elementary school teachers nationwide spent on instruction in each of four core academic subjects. The information, which is based on teacher self-reports, provides new insights about the extent of curricular narrowing during the initial implementation of NCLB and the degree to which state testing policies influence the allocation of instructional time.

First, however, I review what is known about the effects of introducing statewide testing systems on student achievement in the subjects that have been the focus of state and federal accountability efforts to date: reading and math.

Testing and Learning

One claim about the effects of test-based accountability appears beyond dispute. As testing experts Laura Hamilton and Brian Strecher of RAND put it, "the implementation of high-stakes testing has almost always led to increases in test scores." Indeed, a large collection of literature indicates that the introduction of test-based accountability systems is typically associated with a sharp increase in reported student performance on the specific assessments used.8 Yet the extent to which these increases are meaningful remains a matter of debate. This is because a wide variety of factors can lift test scores in the absence of authentic student learning, a phenomenon known as test-score inflation.9

The most straightforward causes of test-score inflation are coaching or outright cheating on the part of teachers. It is important to distinguish inappropriate coaching from the practice of "teaching to the test." Although accountability critics denigrate teaching to the test, proponents see the alignment of instruction with well-designed assessments as one of accountability's main benefits. However, when teachers are familiar with the tests their students will take and adjust their lessons to cover specific test items, as opposed to covering the broader domain from which those items are drawn, test scores become unreliable indicators of student knowledge. The problem is even more obvious when teachers directly assist students during the administration of a test or answer questions on their behalf. Inappropriate coaching and cheating have relatively simple solutions—namely, rotating test items regularly, safeguarding test materials, and adopting sensible test-administration practices—but the extent to which they are responsible for observed increases in test scores after the introduction of accountability systems is often difficult to assess.

Moreover, a host of more sophisticated strategies are available to schools that face strong incentives to demonstrate rapid progress toward higher test scores. For example, schools may classify more students as needing special education, retain more students at grade level, or issue suspensions to coincide with test dates to alter the population taking the test. Some schools in Virginia have even been shown to serve high-calorie meals on the days when state exams are administered, presumably in an effort to enhance alertness and concentration. Such strategies are often only feasible in the short run and can be circumvented by requirements that a specific percentage of students be tested each year. Their availability, however, again calls into question the usefulness of publicly reported data on test performance to gauge the effects of existing accountability systems.

The likelihood of test-score inflation places a premium on sources of student performance data that are independent of any given high-stakes accountability system. Probably the best such evidence currently available is the National Assessment of Educational Progress (NAEP), which provides state-level measures of student achievement in fourth and eighth grade at regular intervals. Because the NAEP is a "no-stakes" exam—the scores of individual districts, schools, and students are not even reported—there is scant incentive to cheat or even to prepare students for the test, nor to manipulate the test-taking population to inflate scores artificially.¹⁴

To my knowledge, four published studies have used state NAEP data to evaluate the effects of test-based accountability policies on student achievement. It is important to note that none of the four studies examines the effects of NCLB. In fact, the implementation of NCLB has further complicated the task of measuring accountability's effects: With all states now engaged in a broadly similar set of policies, cross-state comparisons have been rendered all but useless. Instead, each of the studies attempts to gauge the effects of test-based accountability by examining NAEP performance in the 1990s, when many states were in the process of implementing their own accountability systems. The number of states with accountability systems in place increased from 4 in 1993 to 40 by 2000. Although participation in the state NAEP was voluntary before the passage of NCLB, roughly 40 states took part in assessments of math performance in 1992, 1996, and 2000, and of reading performance in 1994, 1998, and 2002.

One early study, by Audrey Amrein and David Berliner of Arizona State University, set out to compare changes in NAEP reading and math scores following the implementation of "high-stakes" accountability systems in 28 states with concurrent trends among all states participating in the NAEP. Because the authors eliminated states where exclusion rates on the NAEP moved in the same direction as test scores (e.g., an increase in both exclusion rates and test scores), however, the number of states for which they reported results was actually considerably smaller. When their analysis showed more high-stakes states losing ground against the national average than gaining ground, the authors deemed test-based accountability a "failed policy initiative" and argued that it was time for policy makers to move on.

Although the Amrein and Berliner study received considerable media attention, it was fundamentally flawed. Most important, the authors compared each high-stakes testing state individually to the nation as a whole during a period in which many other states were in the process of adopting test-based accountability policies. As Eric Hanushek and Margaret Raymond of Stanford University soon showed, simply comparing the high-stakes testing states as a group with states without high-stakes testing, even while maintaining the same classification scheme Amrein and Berliner used,

revealed a positive relationship between accountability and student achievement.¹⁷

The other three studies of the effects of test-based accountability during the 1990s differ in their details, but they all yield more favorable findings. Hanushek and Raymond examined the rate of progress in math over two four-year spans, one starting in 1992 and one in 1996, and compared states with and without accountability systems in place during these two time periods. Martin Carnoy and Susannah Loeb, also of Stanford, created a 1–5 index measuring the extent of accountability pressure in each state to determine whether the degree of accountability in a state affected the changes in fourth- and eighth-grade math scores between 1996 and 2000. Most recently, Hanushek and Raymond updated their analysis to include results from the 2002 NAEP reading test. These additional data allowed them to measure the progress of states that adopted accountability systems against their own performance earlier in the decade, offering a particularly rigorous test of accountability's effects. All three studies indicate that states that adopted accountability systems during this period improved their performance relative to states without such systems.

Taken together, these results provide convincing evidence that the adoption of test-based accountability policies in the 1990s contributed to the overall increases in fourth- and eighth-grade math scores on the NAEP during this period. Between 1990 and 2003, NAEP math scores increased by 25 points for fourth graders and by 16 points for eighth graders, historically unprecedented gains equivalent to roughly two full years of student learning. Although overall gains on the NAEP reading test in the 1990s were quite small, Hanushek and Raymond's most recent analysis indicates that reading performance, too, was enhanced by the adoption of accountability systems.²¹

At the same time, it is important to note several caveats associated with this research. First, the beneficial effects of accountability reported in each study were all modest in size, equivalent to about 0.2 standard deviations in student achievement. Because the NAEP is not perfectly aligned with state standards, this figure likely understates the true effects of accountability on performance on state tests. Even so, the gains fall far short of what will be necessary to meet the goal of universal proficiency established by NCLB. Nor does it appear that accountability systems have had a larger impact on the performance of minority or low-income students, suggesting that additional strategies will be necessary to close achievement gaps. Finally, although Hanushek and Raymond find that state testing systems need to include consequences for underperformance to work (because systems that simply required the public reporting of test results did not result in higher achievement), these studies

provide little indication of which types of accountability provisions are most effective.

The modest effects of test-based accountability to date may reflect the relatively weak incentives that have been used in most state systems and, in particular, the absence of strong incentives for individual students and teachers. The focus of existing accountability systems has been on schools, which may not be the best target for generating a behavioral response. Accountability systems that create strong incentives for individual students by requiring them to pass state tests to advance to the next grade, for instance, have generated larger gains in student achievement.²⁴ And the presence of centrally administered, curriculum-based exit exams with meaningful consequences for individual students has consistently been shown to be a key factor in explaining international differences in student achievement.²⁵ Evidence on the effect of performance incentives for individual teachers is more limited, but it suggests that merit- or performance-based pay systems may be effective in improving student achievement.²⁶

In sum, research suggests that what gets tested does in fact get learned, at least when testing is combined with some degree of accountability for results. Moreover, there is no credible evidence that testing reduces achievement in tested subjects. Although these results do not bear directly on the effectiveness of NCLB, they provide a strong rationale for the use of test-based accountability as one component of our national effort to improve student achievement.

Testing and Teaching

Yet the concern remains that the heightened focus under NCLB on student achievement in reading and math (and, to a lesser extent, science), however important these subjects may be, may distract schools from other important goals. The correct balance between instruction in basic skills and in other subjects is a matter of debate, especially in the early grades. If, however, as the now-defunct Council on Basic Education (CBE) argued a few years back, "Every American child deserves [an education which] comprises challenging, standards-based instruction in English, mathematics, history, civics, geography, foreign-language, and the arts," the possibility that schools are reducing or eliminating altogether instruction in untested subjects warrants serious attention.²⁷

As noted above, there is suggestive evidence that some curricular narrowing has already occurred since NCLB was passed. In addition to the CEP survey discussed above, about three-quarters of respondents to a CBE survey of principals in Illinois, Maryland,

New York, and New Mexico conducted during the 2003–04 school year reported having increased instructional time in reading, writing, and math since 2000. Among elementary school principals, more than one-quarter reported decreases in instructional time in social studies, civics, and geography, including 47 percent of principals in high-minority schools. The latter figure raises the disturbing possibility that curricular narrowing may be most severe in schools with heavily minority student bodies, for whom the pressure to raise achievement in the reading and math is most severe.²⁸

Unfortunately, so far little systematic evidence has been available on the amount of instruction actually delivered in core academic subjects, information that is essential to determine the extent to which administrator surveys and anecdotal reports accurately portray the experiences of most American students. Nor is it possible from these surveys to gauge the magnitude of any changes in curricular emphasis.

To remedy this gap, Table 1 presents data from the U.S. Department of Education's Schools and Staffing Survey (SASS) on the amount of time that first- and sixth-grade teachers reported spending each week in four core academic subjects: English, math, history or social studies, and science.²⁹ The data cover the period from 1987–88 until 2003–04, the second school year after the enactment of NCLB. The analysis is limited to full-time teachers in self-contained classrooms to ensure that their responses capture the classroom experiences of individual students. The percentage of elementary school teachers who teach in self-contained classrooms increased from just under 60 percent in 1989–90 to roughly 75 percent in 1993–94, but it has remained roughly constant since that time.

The data confirm a marked increase in the amount of instruction elementary school students received in reading during the initial implementation of NCLB. Weekly time spent on reading instruction increased by roughly 40 minutes between the 1999–00 and 2003–04 school years. This increase did not correspond with an overall increase in the total amount of time spent on instruction in core academic subjects, which actually declined slightly over the same four years. Rather, teachers' reports indicate a modest decrease in time spent on instruction in each of the other three subjects, including math. Weekly instructional time fell by 17 minutes in math, by 23 minutes in history, and by 17 minutes in science. As a percentage of the time spent in each subject in 1999–00, the declines were 5 percent, 13 percent, and 10 percent, respectively.

TABLE 1. Weekly Instructional Time in Core Academic Subjects, First through Sixth Grades, 1987–2004

	1987–88 (hours)	1989–90 (hours)	1993–94 (hours)	1999–00 (hours)	2003–04 (hours)	Change, 1988–2004 (minutes)	Change, 1999–2004 (minutes)
Reading/English Language Arts	10.7	10.2	10.6	10.6	11.3	+36.6	+39.6
Mathematics	4.9	4.9	5.2	5.7	5.3	+28.8	-17.4
Science	2.8	2.8	3.1	2.7	2.5	-17.4	-22.8
History/ Social Studies	3.0	3.0	3.2	3.0	2.6	-21.6	-16.8
Total (Core Subjects)	21.2	20.8	22.1	22.0	21.7	+29.4	-16.8
N	9,824	9,499	8,376	7,244	7,397	_	_
Other Activities	10.3	11.0	10.1	10.6	10.9	+31.8	+16.8
School Week	31.6	31.9	32.1	32.6	32.6	+61.2	0
First- to sixth- grade teachers in self-contained classrooms (%)	58.9 d	58.6	75.7	74.4	78.1	_	_
N	9,270	9,190	7,784	6,675	6,919	_	_

Source: Schools and Staffing Survey, U.S. Department of Education, various years.

Note: The sample size is smaller for the length of the school week because of district-level nonresponse.

Of course, fears about tests eroding instruction in subjects other than reading and math predate the enactment of NCLB. As early as 1991, Lorrie Shepard of the Center for Research on Evaluation, Standards, and Student Testing wrote that "Although critics may originally have feared that testing would take instructional time away from 'frills,' such as art and citizenship, the evidence now shows that social studies and science are neglected because of the importance of raising test scores in the basic skills." The SASS data indicate that the amount of instruction elementary school students nationwide received in both history and science actually increased slightly during the first half of the 1990s. After 1993–94, however, as more states implemented accountability systems, time spent on instruction in these two subjects began to decline, while time spent on math

⁻⁻⁼ not applicable.

increased sharply. Using 1987–88 as a baseline, instructional time in English and math had increased by 37 minutes and 29 minutes, respectively, by 2003–04. Time spent on history declined by 22 minutes and time spent on science declined by 17 minutes. Table 2 tracks these fluctuations over this period in the relative amount of time spent on each of these four subjects, revealing that the share of instruction in core academic subjects devoted to reading and math has increased from 73 percent to 77 percent.

TABLE 2. Instructional Time as a Percentage of Time Spent on Instruction in Core Academic Subjects, First through Sixth Grades, 1987–2004

	1987–88 (percent)	1989–90 (percent)	1993–94 (percent)	1999–2000 (percent)	2003–04 (percent)	Change, 1988–2004 (percent)
Reading/English Language Arts	50.2	48.8	47.8	48.3	51.9	+1.7
Mathematics	23.0	23.4	23.6	25.7	24.7	+1.7
Science	13.0	13.3	14.1	12.5	11.3	-1.6
History/Social Studies	14.0	14.5	14.4	13.6	12.1	-2.0
Total	100.0	100.0	100.0	100.0	100.0	_
N	9,824	9,499	8,376	7,244	7,397	_

Source: Schools and Staffing Survey, U.S. Department of Education, various years. Note: Columns may not sum to 100 because of rounding. — = not applicable.

Although they are the basic building blocks of almost any solid elementary-school curriculum, English, math, science, and history do not encompass the full range of experiences and knowledge that students will gain in elementary school. The arts, music, physical education, and even recess are all crucial for the development of healthy, culturally literate citizens. The SASS unfortunately does not contain useful data for directly gauging the extent of students' exposure to these other aspects of a liberal arts curriculum. However, we can get a rough sense of the amount of time available for enrichment activities by examining trends in the total amount of time students spend at school and in the time devoted to instruction in the four core subjects for which data are available.

Table 1 shows that the total amount of time students spent in school each week increased by a full hour between 1987–88 and 2003–04, with half of this increase taking place by 1993–94 and no change evident following the implementation of NCLB.

Meanwhile, the total amount of time spent on instruction in core subjects increased by less than half an hour. Assuming that the time taken up by routine activities such as dismissal, lunch, and assemblies remained constant, the result has been a modest increase in the total amount of time available for enrichment activities. This finding is consistent with the CEP surveys of administrators, which show that physical education has been less affected by the implementation of NCLB than has instruction in other academic subjects.³¹

In sum, the initial implementation of NCLB was accompanied by a substantial increase in the amount of instruction that elementary school students received in reading and by modest declines in the time spent on math, science, and history. During the late 1990s, when many states adopted accountability systems, instructional time increased sharply in math and declined in history and science. Although these descriptive data cannot definitively establish a causal relationship between testing policies and instructional time, the patterns are consistent with an accountability-driven shift in elementary school curricula toward basic skills in reading and math and away from science and history. The extensive case-study evidence indicating that teachers respond to the introduction of accountability systems in part by increasing the amount of time spent on tested content and subjects makes such an interpretation highly plausible.³²

At the same time, the changes in time use in elementary education in recent years are less pronounced than the rhetoric surrounding the issue of curricular narrowing would suggest. This does not invalidate accounts of specific schools in which instruction in subjects other than reading and math has been sharply decreased or eliminated altogether. Nor does it mean that the effects of NCLB on curricula will not become more pronounced over time, as performance targets increase and more schools are identified as needing improvement. But it does suggest that NCLB's impact on elementary schools' curricula, at least through 2003–04, was gentler than has been thought.

Testing and Instructional Time in Science and History

What steps should state and federal policy makers wanting to guard against curricular narrowing consider? One possibility is to introduce additional tests in history and perhaps incorporate performance on those tests into the definition of adequate yearly progress. Testing researcher Richard Phelps makes this case forcefully: "If not-tested subjects are being dropped, either they, too, should be tested or, perhaps, educators and policy makers are signaling that, in a world of tough choices among competing priorities, some subjects must in fact take a backseat to others." Whether

intentional or not, the signal now being sent by NCLB clearly prioritizes the development of basic skills in reading and math over other important subject areas.

A closer look at the 2003–04 SASS data suggests that introducing testing in science and history is likely to be effective in increasing the time devoted to instruction in those subjects. Table 3 presents the average time spent on science and history for states that do and do not have elementary school assessments in those subjects. Although NCLB does not require testing in history, and will not require testing in science until the 2007–08 school year, by 2003–04, 23 states had tested elementary students in at least one grade in science using assessments aligned to state content standards, and 16 states had done so in history or social studies.³⁴ Few of these states included performance in either subject to determine whether schools made adequate yearly progress under NCLB or in state accountability ratings, and many tested elementary school students in science or history only in a single grade, presumably making a strong relationship between policies and patterns of time use less likely.

TABLE 3. Weekly Instructional Time in Science and History, First through Sixth Grades, 2003–04

	All Schools (hours)	Testing in Subject (hours)	No Testing in Subject (hours)	Difference (minutes)
Science	2.46	2.74	2.17	34.2
History	2.62	2.88	2.47	24.6
Total for Core Subjects	21.7	21.8	21.6	12.0
N	7,397	3,115 (science) 2,202 (history)	4,282 (science) 5,195 (history)	_

Source: Schools and Staffing Survey, U.S. Department of Education, 2004; Education Week, Quality Counts 2004 (Bethesda, MD: Education Week Press).

Note: Testing in subject indicates that the school is located in a state with standards-aligned assessments in science or history in at least one elementary school grade. =not applicable.

Even so, Table 3 reveals that the differences between the time spent on science and history in states that do and do not test in those subjects are immense—on the order of 34 minutes in science and 25 minutes in history. That's 26 percent more instructional time for states that test science, and 17 percent more instructional time for states that test history. These differences far exceed the observed decline in the amount of time spent on science and history instruction since the adoption of

NCLB. As appendix table A1 shows, these differences persist after adjusting the data for differences in the percentage of a school's students who are minorities, the percentage eligible for the free and reduced-price lunch program, whether the school is located in an urban environment, and the teacher's experience.

As an additional point of comparison, Table 4 presents similar information for schools with high-minority (80 percent or greater) and low-minority (20 percent of fewer) student bodies. As noted above, the possibility that the impact of NCLB on curricular breadth has been especially severe for minority students has been widely discussed. The results show that high-minority schools do spend less time on science and history than low-minority schools, despite the fact that they spend more total time each week on core academic subjects. The differences, however, are minute: about five weekly minutes in each subject.

TABLE 4. Weekly Instructional Time in Science and History, First through Sixth Grades, 2003–04

	All Schools (hours)	Low-Minority Schools (hours)	No High-Minority Schools (hours)	Difference (minutes)
Science	2.46	2.51	2.42	5.4
History	2.62	2.68	2.60	4.8
Total for Core Subjects	s 21.7	21.3	22.0	42
N	7,397	1,676	3,224	_

Source: Schools and Staffing Survey, U.S. Department of Education, 2004.

Note: High-minority schools are schools with at least 80 percent minority student bodies; low-minority schools are schools with fewer than 20 percent minority student bodies. — = not applicable.

Simple differences in instructional time across states cannot establish that the presence of testing in a particular subject causes teachers to spend more time on those subjects. It is possible—even likely—that states that have adopted testing policies in science or history in the absence of a federal mandate are more committed to educating students in those subjects for other reasons. Yet the success of states that are testing students in science and history in sustaining instruction in those subjects in the NCLB era indicates that this may be a worthwhile step for Congress to consider as the law's reauthorization date approaches.

Conclusion

Discussions of curricular narrowing as a result of NCLB have taken place in an empirical vacuum, which the instructional time data presented here can only incompletely fill. More important, while teachers may report that they are spending 2.6 hours each week on history or social studies, we still have little idea of how well those hours are being spent. Independent evaluations of standards in history and science find that the quality of these standards vary widely across states.³⁵ These differences in quality are probably at least as important an influence on students' academic progress as differences in the quantity of time spent covering a particular subject area. Put differently, simply increasing the time spent on ineffective instructional practices is unlikely to improve student achievement. Although test-based accountability can be a powerful tool in aligning instruction to content standards, careful attention needs to be paid to the standards themselves.

Moreover, measuring the amount of time teachers devote to reading, math, science, and history ignores the extent to which instruction in multiple subjects can and should proceed simultaneously. As McCullough told Congress, it's "fine, to concentrate on the reading all they want. But they don't just have to read what is conventionally seen as literature. They can read the literature of history." The opportunities for synthesizing instruction in math and science are equally clear. Especially for elementary school students, the allocation of time among different subjects is not a zero-sum game.

Thanks largely to the work of E. D. Hirsch, we now better comprehend the critical role that a curriculum rich in content knowledge across a wide range of subjects plays in the development of reading ability. To the extent that becoming a strong reader—one capable of passing state proficiency standards—requires strong content knowledge in areas such as history, science, and even the arts, the narrowing of the curriculum in response to accountability pressures in reading and math may be a self-correcting problem. If intensive instruction in decoding ultimately fails to yield desired improvements in reading proficiency as students age, schools may recognize the short-comings of a curriculum based solely on those skills. In the meantime, introducing high-quality tests in science and especially in history may help to ensure that the modest narrowing of the curriculum that has occurred to date does not accelerate.

TABLE 5. The Relationship between State Testing Policies, School Characteristics, and Time Spent on Science and History, 2003–04

	(1) Science	(2) Science	(3) History	(4) History
Elem Test in Science	0.582***	0.580***	_	_
	(0.163)	(0.157)		
Elem Test in History	_		0.401***	0.405***
,			(0.127)	(0.127)
Percent Minority	_	-0.0001	_	0.001*
		(0.002)		(0.0007)
Percent Free Lunch	_	-0.0005		-0.002**
		(0.002)	_	(0.0009)
Urban	_	-0.134		-0.110
		(0.086)	_	(0.101)
Teacher Experience	_	-0.006		0.0008
		(0.004)	_	(0.003)
Second Grade	-0.013	-0.012	-0.026***	-0.027***
	(0.008)	(0.009)	(0.008)	(0.008)
Third Grade	-0.005	-0.005	-0.024***	-0.024***
	(0.008)	(0.007)	(0.008)	(0.008)
Fourth Grade	-0.003	-0.004	0.023*	0.023*
	(0.009)	(0.009)	(0.013)	(0.012)
Fifth Grade	0.040***	0.040***	0.040***	0.040***
	(0.008)	(0.008)	(0.010)	(0.010)
Sixth Grade	0.088**	0.087**	0.062***	0.062***
	(0.035)	(0.034)	(0.012)	(0.012)
Constant	2.946***	3.069***	3.040***	3.071***
	(0.352)	(0.336)	(0.204)	(0.210)
R2	0.04	0.04	0.04	0.04
N	7,397	7,397	7,397	7,397

Source: Author's calculation using the Schools and Staffing Survey, U.S. Department of Education, 2004. Information on state testing policies is drawn from Education Week, Quality Counts 2004 (Bethesda, MD: Education Week Press, 2004). Note: Ordinary least squares regression; standard errors adjusted for clustering by state in parentheses. States identified as testing in science and history are those that tested elementary students in at least one grade in those subjects using assessments aligned to state content standards during the 2003-04 school year. *=p < 0.01; *=p < 0.05; **=p < 0.01; *=p < 0.01;

Endnotes

- ¹ Richard P. Phelps, "Persistently Positive: Forty Years of Public Opinion on Standardized Testing," in *Defending Standardized Testing*, ed., Richard P. Phelps (Mahwah, NJ: Lawrence Erlbaum Associates, 2005), 1–23; Richard P. Phelps, "The Demand for Standardized Student Testing," *Educational Measurement and Practice* 17, no. 3 (1998): 5–23.
- ² See, for example, Linda Darling Hammond, "Standards, Accountability, and School Reform," *Teachers College Record* 106, no. 6 (June 2004): 1047–1085; Alfie Kohn, *The Case Against Standardized Testing* (Portsmouth, NH:Heinemann, 2000); George F. Madaus, "The Distortion of Teaching and Learning: High-Stakes Testing and Instruction," *Peabody Journal of Education* 65, no. 3 (Spring 1988): 29–46; and Nell Noddings, "Care and Coercion in School Reform," *Journal of Educational Change* 2, no. 1 (2001): 35–43.
- ³ Sam Dillon, "Schools Cut Back Subjects to Push Reading and Math," New York Times, March 26, 2006, A1.
- ⁴ Center on Education Policy, *From the Capital to the Classroom: Year 4 of the No Child Left Behind Act* (Washington, DC: Center on Education Policy, 2006).
- ⁵ Craig G. Jerald, "The Hidden Costs of Curriculum Narrowing," Center for School Reform and Improvement, August 2006, available at http://www.centerforcsri.org/files/CenterIssueBriefAug06.pdf.
- Testimony of David McCullough, Hearing before the Subcommittee on Education and Early Childhood Development of the Committee on Health, Education, Labor, and Pensions, United States Senate, 109th Congress, 1st Session, June 30, 2005.
- ⁷ Laura S. Hamilton and Brian M. Strecher, "Improving Test-Based Accountability," in *Making Sense of Test-Based Accountability in Education*, eds. Laura S. Hamilton, Brian M. Stecher, and Stephen P. Klein (Santa Monica, CA: Rand, 2002), 121.
- Richard P. Phelps, "The Rich, Robust Research Literature on Testing's Achievement Benefits," in *Defending Standardized Testing*, ed. Richard P. Phelps (Mahwah, NJ: Lawrence Erlbaum Associates, 2005), 55–90.
- The tests administered as part of most accountability systems consist of samples of questions drawn from the broader domain of knowledge that the test is designed to assess. The test scores of individual students measure, inevitably with some degree of imprecision, the students' mastery of that broader domain of knowledge. When test scores are inflated, they no longer support valid inferences about the subject matter being assessed. For an excellent discussion of the meaningfulness of test score gains, see Brian A. Jacob, "A Closer Look at Achievement Gains under High-Stakes Testing in Chicago," in *No Child Left Behind? The Politics and Practice of School Accountability*, eds. Paul E. Peterson and Martin. R. West (Washington, DC: Brookings Institution Press, 2003), 269–91.
- Brian M. Strecher, "Consequences of Large-Scale, High-Stakes Testing on School and Classroom Practice," in *Making Sense of Test-Based Accountability in Education*, eds. Laura S. Hamilton, Brian M. Strecher, Stephen P. Klein (Santa Monica, CA: Rand, 2002), 79–100.
- ¹¹ Brian A. Jacob and Steven Levitt, "Rotten Apples: An Investigation of the Prevalence and Predictors of Teacher Cheating," *Quarterly Journal of Economics* 118, no. 3 (2003): 843–77.
- David N. Figlio and Lawrence S. Getzler, "Accountability, Ability, and Disability: Gaming the System," NBER Working Paper No. 9307, National Bureau of Economic Research, October 2002; David N. Figlio, "Testing, Crime, and Punishment," NBER Working Paper No. 11194, National Bureau of Economic Research, March 2005; Julie B. Cullen and Randall Reback, "Tinkering Toward Accolades: School Gaming Under a Performance-Based Accountability System," Working Paper, University of Michigan, 2002.

- David N. Figlio and Joshua Winicki, "The Effects of School Accountability Plans on School Nutrition," *Journal of Public Economics* 89, no. 2–3 (February 2005): 381–94.
- Although exclusion rates on the NAEP do appear to be systematically related to performance (states that exclude more special education and limited English proficiency students tend to see their test scores increase), data on the share of students that is excluded are readily available to make statistical adjustments that account for this bias. Eric A. Hanushek and Margaret E. Raymond, "Does School Accountability Lead to Improved Student Performance?" *Journal of Policy Analysis and Management* 24, no. 2 (2005): 297–327.
- Hanushek and Raymond, "Does School Accountability Lead to Improved Student Performance?" 297–327.
- Audrey L. Amrein and David C. Berliner, "High-Stakes Testing, Uncertainty, and Student Learning," *Education Policy Analysis Archives* 10, no. 18 (March 2002), available at http://epaa.asu.edu/epaa/v10n18/ (accessed April 23, 2007).
- The additional gains made by states with high-stakes testing systems remained statistically significant even after adjusting for changes in NAEP exclusion rates. Eric A. Hanushek and Margaret E. Raymond, "High-Stakes Research," *Education Next* 3, no. 3 (Summer 2003): 48–55; for a similar critique, see Barak Rosenshine, "High-Stakes Testing: Another Analysis," *Education Policy Analysis Archives* 11, no. 24 (August 2003), available at http://epaa.asu.edu/epaa/v11n24/ (accessed April 23, 2007).
- Eric A. Hanushek and Margaret E. Raymond, "Improving Educational Quality: How Best to Evaluate our Schools?" in *Education in the Twenty-First Century: Meeting the Challenges of a Changing World*, ed. Yolanda Kodrzycki (Federal Reserve Bank of Boston, 2002), 193–224.
- ¹⁹ Martin Carnoy and Susannah Loeb, "Does External Accountability Affect Student Outcomes?" Educational Evaluation and Policy Analysis 24, no. 4 (Winter 2002): 305–31.
- ²⁰ Hanushek and Raymond, "Does School Accountability Lead to Improved Student Performance?" 297–327.
- ²¹ Tom Loveless, "How Well Are American Students Learning?" 2006 Brown Center Report on American Education (Washington, DC: Brookings Institution, 2006).
- Improvements in state performance on the NAEP are generally smaller than improvements on state tests. The extent to which the differences reflect artificial inflation of state test scores or simply the lack of alignment between state and NAEP standards is difficult to assess. See Daniel M. Koretz and Sheila I Barron, *The Validity of Gains on the Kentucky Instructional Results Information System* (Santa Monica, CA: Rand Corporation, 1998); Stephen P. Klein, Laura S. Hamilton, Daniel F. McCaffrey, and Brian M. Stecher, "What do Test Scores in Texas Tell Us?" Issue Paper No. 202, Rand Corporation, 2000.
- ²³ Hanushek and Raymond, "Does School Accountability Lead to Improved Student Performance?" 297–327.
- ²⁴ Brian A. Jacob, "Accountability, Incentives, and Behavior: The Impact of High-Stakes Testing in the Chicago Public Schools," *Journal of Public Economics* 89, no. 5–6 (2005): 761–96.
- Ludger Woessmann, "Central Exams and Student Achievement: International Evidence," in No Child Left Behind? The Politics and Practice of School Accountability, eds. Paul E. Peterson and Martin. R. West (Washington, DC: Brookings Institution Press, 2003), 292–323; John H. Bishop, "The Effect of National Standards and Curriculum-Based Exams on Achievement," American Economic Review 87, no. 2 (1997): 260–64.

- ²⁶ Michael J. Podgursky and Matthew G. Springer, "Teacher Performance Pay: A Review," Working Paper, National Center on Performance Incentives, October 24, 2006.
- ²⁷ Claus von Zastrow with Helen Janc, *Academic Atrophy: The Condition of the Liberal Arts in America's Public Schools* (Washington DC: Council for Basic Education, 2004), 11.
- ²⁸ von Zastrow with Janc, Academic Atrophy, 7-8.
- ²⁹ For an earlier analysis of instructional time using data from the Schools and Staffing Survey, see Marianne Perie, David P. Baker, and Sharon Bobbitt, "Time Spent Teaching Core Academic Subjects in Elementary Schools: Comparisons Across Community, School, Teacher, and Student Characteristics." U.S. Department of Education, National Center for Education Statistics (NCES 97-293), 1997.
- Jorrie A. Shepard, "Will National Tests Improve Student Learning?" Phi Delta Kappan 72, no. 1 (November 1991): 233–34.
- ³¹ Center on Education Policy, *From the Capital to the Classroom: Year 4 of the No Child Left Behind Act* (Washington, DC: Center on Education Policy, 2006).
- 32 Strecher, "Consequences of Large-Scale, High-Stakes Testing on School and Classroom Practice," 79–100.
- ³³ Richard P. Phelps, "Why Testing Experts Hate Testing," in *Testing Student Learning, Evaluating Teacher Effectiveness*, eds. Williamson M. Evers and Herbert J. Walberg (Stanford, CA: Hoover Institution Press, 2004).
- Information on state testing policies is drawn from Education Week, *Quality Counts 2004* (Bethesda, MD: Education Week Press, 2004).
- ³⁵ Chester E. Finn, Jr., Michael J. Petrilli, and Liam Julian, *The State of State Standards*: 2006 (Washington, DC: Fordham Foundation, 2006).
- Testimony of David McCullough, Hearing before the Subcommittee on Education and Early Childhood Development of the Committee on Health, Education, Labor, and Pensions, United States Senate, 109th Congress, 1st Session, June 30, 2005.

Is A Default Curriculum in High School A Good Strategy For Promoting the Humanities?

• • •

By Matthew Gandal, Michael Cohen, & John Kraman

Matthew Gandal is Executive Vice President of Achieve. Michael Cohen is President of Achieve. John Kraman is Senior Policy Analyst at Achieve.

Standards and accountability are the driving force behind school reforms at the federal and state levels. Over the past 10-15 years, governors and state education leaders across the country have made standards based reforms the centerpiece of their K-12 policies. The No Child Left Behind Act upped the ante by requiring more frequent assessment and more stringent accountability metrics than most states had before.

As testing and accountability have increased, some are concerned that important disciplines are getting short shrift, particularly those for which schools are not held accountable. While there may not be empirical evidence that this is happening, there seems to be plenty of anecdotal evidence, so the question the Fordham Foundation has put on the table is an important one: how can policymakers and education officials ensure that as standards-based reforms increase schools' focus in critical areas such as math, reading and science, they do not have the unintended consequence of undermining teaching and learning in the broader liberal arts, particularly the humanities?

In this paper, we explore this challenge as it relates to the growing trend to align high school academic standards, course requirements, and assessments with the real world expectations of college and the workplace.

What's Driving High School Standards and Curriculum Today?

Although NCLB is driving reforms in elementary and middle schools, most agree it is not having much impact in high schools. The federal testing requirements in high school are more limited and so, therefore, is their impact on the high school curriculum.

The more significant driver of high school curriculum today is the pressure states and districts are feeling to prepare students for successful transition to higher education and, ultimately, 21st century jobs. Governors are highly focused on economic development, and they see better schools, turning out better prepared gradu-

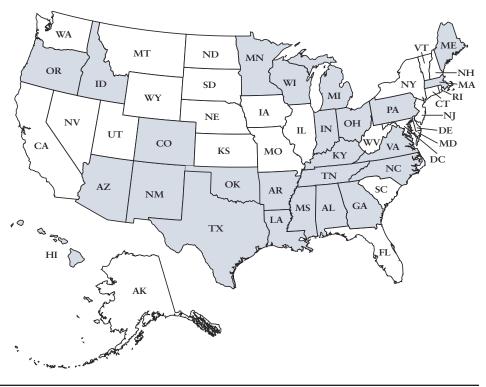
ates, as a key ingredient. There is a growing movement in states to align expectations in high school with the demands of the real world, so that earning a diploma better prepares students for success in college and the job market. Achieve has been at the forefront of this work.

In 2002, Achieve – along with the Education Trust, the Fordham Foundation, and the National Alliance of Business – issued a report outlining the mathematics and communications skills young people need to be ready for their next steps after high school. The report was based on two years of research with college faculty and employers to define the mathematics and communications skills incoming high school graduates need in order to succeed in their institutions. The result of that work was a set rigorous college- and work-readiness standards called the American Diploma Project (ADP) benchmarks in mathematics and English language arts, and a set of policy recommendations for incorporating the standards into formal expectations for high school graduation.

In our report, we called on education leaders in K-12 to align their curriculum standards, assessments, and graduation requirements with skills required to succeed in higher education, which it turns out are consistent with the skills required to succeed in today's knowledge based economy. Achieve followed up this report with analyses of the current high school graduation requirements in states—both the courses students are required to take to earn a diploma² and the graduation tests they must pass.³ The conclusion we drew is that there is a large gap between what states require students to learn to earn a diploma and the expectations they will face in college and the workplace. To put it starkly: In nearly every state, students can take the required courses and pass the mandated tests and still be unprepared for college and careers.

Over the last few years, a significant number of states have made it a priority to close this expectations gap. **Twenty-nine states** are currently working with Achieve as members of the American Diploma Project Network to strengthen high school standards, curricula, assessments, and data and accountability systems so that all students graduate ready for college and 21st-century jobs.

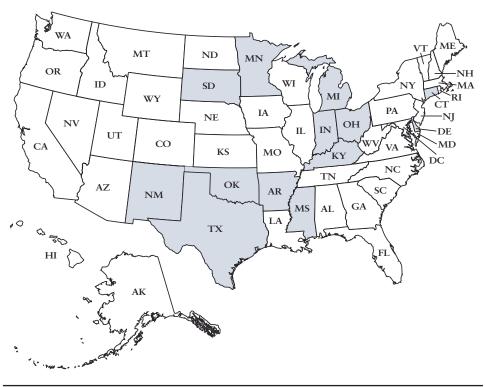
TWENTY-NINE STATES HAVE JOINED THE AMERICAN DIPLOMA PROJECT NETWORK



States Raising Graduation Requirements and Requiring a Common Core

One of the most powerful strategies states are pursuing to better prepare students for college and work is to raise high school graduation requirements so that students are required to take more challenging courses to earn a diploma. Two years ago, only two states had graduation requirements aligned with the American Diploma Project recommendations in math and English.⁴ Since then, eleven additional states have passed legislation raising their requirements to the ADP level and more are considering a similar move. More important than the number of courses students take, the American Diploma Project benchmarks are meant to define the knowledge and skills that need to be learned in high school and the importance of taking four years of increasingly challenging courses that lead to college- and work-readiness by the end of the 12th grade.

THIRTEEN STATES HAVE RAISED GRADUATION REQUIREMENTS TO THE COLLEGE AND WORK READINESS LEVEL



States have taken different approaches to raising graduation requirements. Eight states – Arkansas, Indiana, Michigan, Mississippi, New Mexico, Oklahoma, South Dakota and Texas – have put in place a "default curriculum." Students in these states are automatically enrolled in a rigorous course of study—often the equivalent of the college prep curriculum—when they enter ninth grade unless their parents opt them out into a less challenging curricular pathway. Parents must meet with school officials and sign a waiver for this to happen. Other states – Delaware, Kentucky, Minnesota, New York and Ohio⁵ – have raised requirements without an opt-out provision. Students in these states will be required to take the more challenging courses in order to graduate.

Both approaches are designed to do away with the type of tracking that has existed in American high schools for a very long time, and that leaves many students unprepared for the world they enter after school. These policies will challenge schools to change the way they operate: rather than putting the onus on students and parents to opt into the more challenging course sequence, all students will be

automatically placed there under the assumption that with the proper support and encouragement, they can be successful. Those who have the most to gain from these policies are low income and disadvantaged students who have traditionally not had access to challenging courses or have been counseled out of them.

As States Raise High School Graduation Requirements in Math and Science, What Happens to the Broader Liberal Arts?

Each of the 13 states that have raised graduation course requirements to the level recommended by ADP has raised them primarily in math, since deficiencies in the math performance of high school graduates have been most glaring to both employers and postsecondary institutions. Many have also raised requirements in science. But the curriculum requirements do not stop there. All of these states have also established course taking requirements in English, history/social studies, and civics, and most specify requirements in foreign languages and the arts as well. None of the states has cut back on requirements in the humanities in order to make room for more math and science. (See appendix for full listing of course requirements in the 13 states.)

A closer look at the requirements in the thirteen states with ADP-level diplomas shows that all require at least four years of English, though it is not always clear which courses and what content count toward those four years. High school English courses tend to be heavily literature based, but employers and colleges are increasingly interested in whether incoming students can read and understand a variety of non-literary texts—everything from persuasive essays and op-eds to materials requiring the analysis and interpretation of data. In order to respond to this demand, states and districts may need to create more of a balance between literary studies and reading in other areas. The challenge will be to do this in a way that continues to respect the important role of literature in the high school English Language Arts curriculum. Employers and colleges are also looking for strong oral and written communication skills. This should lead to greater emphasis on these skills, particularly writing, in the high school curriculum.

In history and social studies, most states require three years, but specify at most that one or two semesters must cover each of the following: U.S. history; civics or government; and world history or geography. Time devoted to these subjects is not decreasing in these new diploma requirements. The larger issue is how are all the states defining what constitutes a course credit in these areas—what level of guidance are states providing to districts and schools as to the content and nature of

the courses that will be allowable. Here, as in English, we find a mixed bag. Some states, such as Georgia, Indiana, Massachusetts and Virginia have done a respectable job defining the core content that high school history and civics courses must cover. These states have created comprehensive standards that prioritize the most important ideas, eras, events and people in our nation's past, and present them in a way that supports classroom instruction. Their standards are structured sequentially and provide a balanced perspective on history. Other states' standards sometimes lack focus, structure, and instructional guidance, leaving it up to districts and teachers to sort out what's most important for students to learn.

How do other notable disciplines fare in these state requirements? Foreign language requirements are increasing due to the growing recognition that additional languages are an asset in a global economy. Some states require two years; others one. Most states also require students to take one year of coursework in fine arts, though a few make it optional.

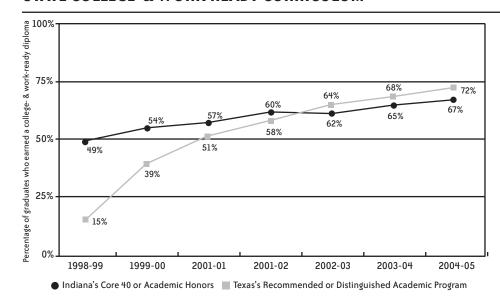
Some have been concerned that as states raise requirements in core subjects, time for electives will be squeezed from students' schedules, making it increasingly difficult for them to pursue courses of interest, including in the humanities. This is not the case. States that have raised requirements have kept the number of electives relatively constant, so there is adequate time for students to take courses outside the required core.

Some states, such as Indiana and Kentucky, have encouraged students to go beyond the core by offering concentrations or more advanced diplomas for students who take an additional set of courses. In Indiana, for example, all students are required to take the "Core 40" college and work preparatory curriculum (unless they opt out). In addition, there are both academic and technical honors distinctions that are reflected on the diplomas of students who take additional courses the state has specified. For the academic honors diplomas, students are required to take an additional year of math, several years of a foreign language, and a fine art; for the technical honors diplomas, students are required to complete a sequence of career technical courses. In Kentucky, the advanced diploma requires students to take four Advanced Placement or International Baccalaureate courses.

Early Returns Show Promise

In most states, the higher requirements have only recently been legislated so it is too early to look for results. There are, however, promising signs in places that have been at this the longest. Before Texas and Indiana made their college prep curricula the default graduation requirement, they strongly encouraged students to take those courses. In both states, at least two thirds of graduates were completing the voluntary college- and work-ready diploma before the states made it the required curriculum for all students. Importantly, graduation rates remained steady or increased as the number of students taking these advanced courses climbed.

INDIANA AND TEXAS ENCOURAGED INCREASING NUMBERS OF HIGH SCHOOL STUDENTS TO COMPLETE THE VOLUNTARILY STATE COLLEGE-& WORK READY CURRICULUM



San Jose Unified School District, a diverse urban district in California, followed a similar path as Texas and Indiana, making the college prep curriculum the default for all students. Beginning with the graduating class of 2002, students were required to complete the University of California's minimum subject area requirements (commonly known as A-G) to earn a high school diploma. In 2004, 65 percent of San Jose graduates completed all of those courses with a C or better, up from just 37 percent in 2001. Forty-five percent of Hispanic graduates are university eligible right out of high school compared to 21 percent statewide. Enrollment of

Hispanic students in Advanced Placement courses has more than doubled as well. These are important statistics as over half of the students in the district are Hispanic. Achievement scores and GPAs have also risen across the board in San Jose. As in Texas and Indiana, success hasn't come at the expense of higher dropout rates as many feared. The district's four-year graduation rates actually improved slightly over the same period while the state's has declined.

The Limitations of Graduation Requirements

Graduation requirements are a powerful lever for ensuring that students take the right courses in high school, and as we've described here, states are not cutting back on course requirements in the humanities as they increase them in math and science. Furthermore, national data suggest that, by and large, students are taking more courses in the humanities than ever before (see table below). From 1982 to 2004 the average number of Carnegie units in English, the Fine Arts, Social Studies and the humanities earned by high school graduates increased from 9.6 to 12.2. Yet the most recent NAEP results in key humanities subjects indicate that high school students are not performing at the appropriate levels in these subjects. For example, only 26% of 12th graders scored proficient or above on the 1998 NAEP Civics assessment, only 25% of 12th graders scored proficient on the 2001 NAEP Geography assessment, and only 11% of 12th graders were proficient or above on the 2001 NAEP History assessment.

ARE THE HUMANITIES GETTING SQUEEZED FROM THE HIGH SCHOOL CURRICULUM?

Average Number of Carnegie Units Earned by Public High School Graduates in Key Subjects⁷

Subject	1982	1987	1990	1994	1998	2000	2004
English	3.9	4.1	4.2	4.3	4.3	4.4	4.4
Arts	1.5	1.4	1.6	1.7	1.9	2.0	2.0
History/Social Studies	3.2	3.3	3.5	3.6	3.7	3.8	3.9
Mathematics	2.6	3.0	3.2	3.3	3.4	3.6	3.8
Foreign Languages	1.0	1.0	1.5	1.7	1.9	2.0	1.9
Science	2.2	2.6	2.8	3.0	3.1	3.2	3.5
All Academic Courses	14.4	15.4	16.8	17.6	18.3	19.0	19.5

If students are taking more courses in the humanities now than before, why is achievement so low? The problem is not a lack of time for the humanities. To the extent that high school achievement falls short, the remedy most likely lies in improving the quality of the curriculum and instruction students are exposed to, a far more difficult challenge to confront.

While state governments typically have primary responsibility for setting graduation requirements, there are many more sources of influence on the quality of teaching and learning in the classroom. Institutions of higher education, local school districts, professional organizations in the academic disciplines and others also have important roles to play. To improve teaching and learning in the humanities education policymakers and leaders should look at three key factors:

Preparation in elementary and middle school. The rigor and depth of high school courses depends in part on the level of preparation of their entering students. Unfortunately, NAEP results from the same years as above reveal that only about one quarter of 4th and 8th graders, at most, are proficient in civics, geography, or U.S. history. These figures are substantially unchanged from the previous NAEP administrations in each subject and grade level. Unless this trend is reversed, many high schools may offer watered down versions of required courses, with the right course titles but less rigorous and rich content. We will soon learn if these trends persist; the results of the 2006 administration of NAEP History and Civics assessments are to be released shortly. If in fact NCLB's emphasis on reading and math in grades 3-8 has narrowed the curriculum and reduced time and attention to the humanities, we would expect to see a decline in performance. Either way, one focus of improving student performance in the humanities should be a careful look at the preparation students are receiving in elementary and middle school, including the time devoted to these subjects, curricular content and design, and the quality of instruction.

Rigor and quality of high school courses. Requiring students to take specific courses or subjects only gets you so far, unless there are coherent mechanisms in place to ensure the quality and rigor of each course. This challenge was highlighted by the most recent 12th grade NAEP results and the accompanying high school transcript study released by the National Assessment Governing Board. Although students in high school are taking more challenging courses and earning higher GPAs, scores on NAEP assessments are not necessarily improving. States can play a significant role in ensuring that course content lives up to course titles. First, they can define rigorous standards in each discipline and develop clear course descriptions

that spell out core content and skills for each course. Second, states can administer end-of-course tests to measure whether students are learning that core content. This, too, helps ensure consistent content and rigor of courses bearing the same title, regardless of where in the state it is taught. States can also provide sample lessons, instructional tasks and formative assessments. Taken together, these tools can promote consistent rigor and continuous instructional improvement.

Some states are beginning to look beyond Carnegie units at other ways students can satisfy college and work ready graduation requirements through demonstrations of proficiency.

In 2003, the Rhode Island Board of Regents ushered in a new high school diploma system, requiring all students to demonstrate proficiency in "core content knowledge" and "applied learning skills" in English Language Arts, mathematics, science, social studies, the arts, and technology aligned with state standards. Proficiency will be determined mainly through performance on assessments, but students may also use other performances such as speeches, projects, essays, and collections of short stories or journals. In Pennsylvania, the Governor's Commission on College and Career Success recently issued high school reform recommendations designed to raise achievement for all students within a traditional local control framework. The first recommendation would require all students demonstrate proficiency on the state's academic standards in the core subjects either by passing a series of state-developed, end-of-course tests – the Graduation Competency Assessments (GCAs) – or by scoring proficient or above on the 11th grade Pennsylvania System of School Assessment. The goal in these states is to ensure all students master the college- and work-ready content defined in state academic standards, while also providing districts the flexibility to design and implement courses and curricula as they choose.

Quality Teaching. In the humanities, as in all subjects, good teachers are the most powerful influence on student engagement and learning. For the most part, the strategies for improving teaching in the humanities will be common to teaching in all subjects – strengthening teacher preparation; taking steps to attract, recruit and retain highly qualified individuals; providing teachers with the support, professional development and tools they need to continuously improve instruction; and ensuring strong instructional leadership in every school.

One challenge may be different in the humanities than, for example, in math and science. Students can't learn from teachers who lack grounding in the content. Data from the 1999 – 2000 Schools and Staffing Survey show that approximately 25% of high school classes – in English and Social Studies as well as in Mathematics

and Science – are taught by teachers who lack strong preparation in the subject matter they teach. While there are clearly shortages of qualified math and science teachers, there does not appear to be a shortage of qualified English and Social Studies teachers. Rather, as high schools stretch staffing resources to address a variety of needs, teachers are often assigned to teach subjects in which they lack preparation. Until school districts change teacher assignment practices, achievement in the humanities – and most other subjects – will continue to suffer.

Making the Case for the Liberal Arts

There is a final challenge here as well—the need to build greater demand for a broader liberal arts curriculum. The graduation policies states are pursuing today are being fueled by data about the changing job market and the higher skill sets young people will need to compete, whether they plan to go to college or the workplace. The ability to directly connect the courses students take in math, science and communications with their chances for success in college and careers creates a powerful argument for raising standards.

Currently, there is no equally compelling argument being made for the broader liberal arts, especially the humanities. The arguments in favor of the humanities tend to be more diffuse, and the field has not done a very good job defining a common core in these disciplines. The lack of urgency and consensus has provided less of an incentive for policymakers to take concerted action.

Is there a way to anchor humanities expectations in the real world just as we've done in math and English? Perhaps, but the path is less clear. It's possible the case can be made that these disciplines contribute to success in jobs and college, but the evidence will be slimmer than in math, reading and communications. If we were instead to ask what it takes to be a productive, contributing member of our democratic society, that lens may hold more promise.

The bottom line is that if advocates want to increase the quantity and quality of the liberal arts students are exposed to in high school—whether it is civics, history or the arts—they will need to make a clear and compelling case for it. They will need to build a consensus around what students should learn and how to measure whether students have learned it. And they will need to do that in a manner that does not detract from or compete with efforts to raise standards and performance in math, science, reading, and communications. The importance of preparing students to be well rounded, successful citizens in our democracy, and the aggregate impact that will have on our society, may be the best case we have.

Endnotes

- ¹ The American Diploma Project, "Ready or Not: Creating a High School Diploma That Counts" (2004).
- ² Achieve, Inc., "The Expectations Gap: A 50-State Review of High School Graduation Requirements" (2004).
- ³ Achieve, Inc., "Do Graduation Tests Measure Up?: A Closer Look at State High School Exit Exams" (2004).
- ⁴ ADP benchmarks contain the knowledge and skills typically reflected in four years of grade-level English, including literature, writing, reasoning, logic and communication skills. ADP benchmarks call for four years of mathematics, including content such as geometry, data analysis, statistics, advanced algebra, reasoning, and problem solving. This content can be covered by a traditional course sequence that includes Algebra I, Geometry, and Algebra II, plus considerable data analysis and statistics. However, an integrated approach could work just as well and some states are moving in that direction.
- ⁵ Ohio does have a limited "opt out" provision for students in drop-out recovery programs.
- ⁶ First class impacted: Texas's Recommended High School Program became the default diploma option for ninth graders starting in the fall 2004; the Indiana's Core 40 became the default diploma option for ninth graders starting in the fall 2007.
- Data for years 1982-2000 from U.S. Department of Education, National Center for Education Statistics, Digest of Education Statistics (2005), Table 132. Data for 2004 from U.S. Department of Education.

Appendix

STATE COLLEGE- AND WORK-READY HIGH SCHOOL **GRADUATION REQUIREMENTS**

	AR	DE	IN	кү	МІ	MN	MS
Name of Diploma	Smart Core	State of DE Diploma	Core 40	Common- wealth	Merit Curriculum	MN HS Diploma	MS HS Diploma
Year New Requirements Passed	2004	2006	2005	2006	2006	2006	2006
1st Impacted Expected Graduating Class	2010	2011 (2013: For Lang added)	2011	2012	2011 (2016: For Lang added)	2015	2012
Requirement	Default	Mandatory	Default	Mandatory	Default	Mandatory	Default
Required Courses	22	24	20	22	18	21.5	24
Change in Total Required Courses	0	+2	0	0	+18	0	+4

	NM	NY	ОН	ок	SD	тх
Name of Diploma	NM Diploma of Excellence	Regents Diploma	Ohio Core	Standard Diploma	Advanced HS Program	Recommended HS Program (RHSP)
Year New Requirements Passed	2007	2005	2007	2005	2005	2003/2006*
1st Impacted Expected Graduating Class	2013	2010	2014	2010	2010	2007/2011*
Requirement	Default	Mandatory	Mandatory	Default	Default	Default
Required Courses	24	22	20	23	22	26
Change in Total Required Courses	+1	0	0	0	0	+4

^{*}The Texas RHSP was first established as the requirement for all students (as the default diploma option) in 2003 – impacting the class of 2008 – and included three math credits through Algebra II. In 2006 – impacting the class of 2011 – a fourth year of math was added to RHSP; in 2007 the state board is expected to clarify what that fourth year should include/cover.

**North Carolina recently approved a diploma framework that will likely be finalized with similar requirements. The NC framework is included as the 13th state and details the new requirements as they now stand.

STATE COLLEGE- AND WORK-READY HIGH SCHOOL GRADUATION REQUIREMENTS

	AR	DE	IN
English	4.5 [including 0.5 Oral Communication]	4	4 [including literature, speech & composition]
Mathematics	4 [including one beyond Algebra II]	4 [including Algebra II]	3 [including Algebra II; all students must take math or Physics in 11th or 12th grade]
Science	3 lab-based physical sciences	3	3 [including one Biology & one Chemistry or Physics; all students must take math or Physics in 11th or 12th grade]
Social Studies	3 [including one American History, one World History & one Civics/U.S. Government]	3	3 [including one U.S. History, one World History/Civilization or Geography, 0.5 U.S. Government, & 0.5 Economics]
Foreign Language	0	2 [beginning class of 2013]	2.5 [students must choose from Fine Arts, Career/Tech & World Languages]
Other	1 PE/Health 0.5 Fine Arts 6 "Career Focus"	1.5 PE/Health 3 "Career-Academic Pathway" courses 3.5 electives	1.5 PE/Health 2.5 [students must choose from Fine Arts, Career/Tech & World Languages] 3 ["Career-Academic Sequence" recommended]
Total Required Courses	22	24	20

кү	MI	MN	MS
4	4	4	4
3 [including Algebra II; students must be engaged in math all four years of high school]	4 [including Algebra II]	3 [including Algebra, Algebra II, Geometry & Statistics/Probability; all students must take math in 12th grade]	4 [including at least two beyond Algebra, such as Geometry, Algebra II & any courses beyond Algebra II]
3	3 [including one Biology & one Chemistry or Physics]	3 [including one Biology & one Chemistry or Physics]	4 [including at least one lab-based course]
3 [including U.S. History, Geography, Government/Civics, Economics & Geography, Culture/Societies]	3 [including one U.S. History & Geography, one World History & 0.5 Civics & 0.5 Economics]	3.5 [including U.S. History, Geography, World History, Government/Citizenship & 0.5 Economics]	4 [including one World History, one U.S. History, 0.5 Geography, 0.5 U.S. Government, Economics & 0.5 Mississippi Studies]
0	2	0	0
1 PE/Health 1 Visual or Performing Arts 7 [four of which must be within students' academic or career interests, based on students' Individualized Learning Plans]	1 PE/Health 1 Visual Arts 0 ["on-line learning experience" required]	1 Fine Arts 7 Other Required Electives	0.5 PE/Health 1 Fine Arts 1 [including one Computer Discovery, or 0.5 Keyboarding & 0.5 Computer Applications] 5.5 Other Required Electives
22	18	21.5	24

Time in School: Opportunity to Learn

Kate Walsh

President of the National Council on Teacher Quality

In districts across the country, there are significant variations in the amount of time children spend in school. This variance suggests that those schools focusing on student "time on task" as an indicator of learning may be putting the cart before the horse. Instead, schools may want to first examine the *student time in school* as a baseline indicator of student opportunity to learn.

This paper looks at the times districts establish for the length of the student school day, as described in collective bargaining agreements, personnel handbooks, board policies, and school calendars. We do not examine the length of the *instructional* day. Rather, we measure the student *school* day, which more readily permits fair comparison among districts. The data are culled from a sample of the 50 largest districts in the United States, and our focus is kindergarten through fifth grade. We reveal fundamental disadvantages some children face by virtue of the school district they attend. Even when the daily difference may appear quite small (what's a few minutes here and there?), over time, the variation can be quite substantial. By comparing the school district that purportedly has the shortest school day with the one that supposedly has the longest, we find that children in the former district receive the equivalent of 41 days less school in a single year, and of one less year of school for every four and a half school years. The vast majority of this variance can be explained by the length of the school day (not the number of days in a school year), a number which is generally more standard among all districts.

The development of a new database that was launched this January by the National Council on Teacher Quality (NCTQ) makes this analysis practical for the first time. The NCTQ database has made it easier to examine such issues as the school calendar, as well as many other policies that concern the rules, rights, and roles of teachers. Our aim is to shed more light on the impact that teacher rules and rights have on the operation of schools and, more specifically, their impact on student learning. We have organized the often cumbersome and dense contents of collective bargaining agreements as well as information from teacher handbooks and the personnel policies approved by school boards in districts that either are not permitted to or choose not to bargain collectively. Other relevant board policies such as

school calendars are examined, when available. With a grant from the Bill and Melinda Gates Foundation, we have begun with the nation's 50 largest school districts and will be adding more with time. We intend to add personnel contracts of private and charter schools, as well as principals' contracts.

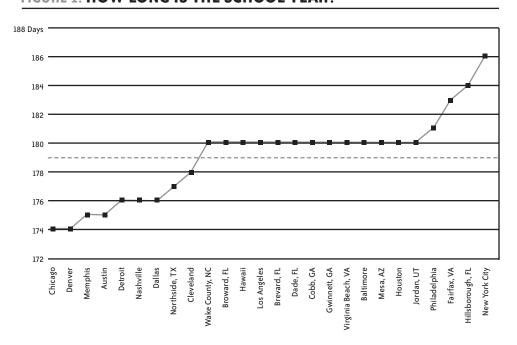
We combed through these agreements and board policies, coding them in anticipation of any question a user might have. To date, we have developed more than 300 tables that look at not just issues surrounding time and the school calendar, but also at teacher benefits, leave, salaries, class size limits, pay alternatives, teacher evaluations, professional development, working conditions, transfers, teacher dismissal, and more.

This paper provides comparisons for students in 26 of the 50 largest school districts. Data from the remaining 24 were either missing or ambiguous.

Time in the Day

The length of the student school year varies little across districts. Relatively small differences in the length of the school year may send some misleading signals that not *that* much difference exists among districts in the amount of time children spend in school. For example, following is the range in the number of school days that 26 districts report:

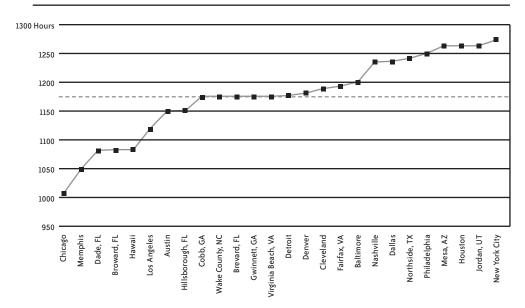
FIGURE 1: HOW LONG IS THE SCHOOL YEAR?



Exactly half the districts in the sample report the same number of days in the school year—180 days—with an overall average for the 26 districts of 179 days. With a couple of exceptions, most of the remaining districts fall within four days of this standard. The finding reflects the standardization among districts resulting from similar state laws mandating that their districts provide a minimum 180-day school year. Given the tendency of districts to report this number with or without professional days, with or without accounting for half days, and other odd accounting choices, the general sense of policy makers looking at this issue may be that the data are a wash. All children appear to be getting roughly the same amount of instruction each year.

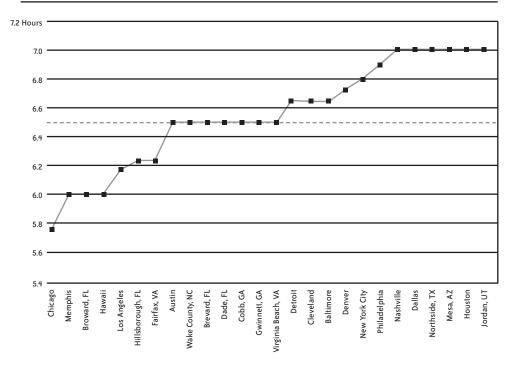
Although many states legislate the number of instructional hours that students must receive, these laws do not appear to have led to as much standardization of the data. Districts appear to regularly exceed or find ways to work around their state's required number of instructional hours. We do not equate districts' instructional hours with the state requirement here, because we are looking at a broader interpretation than the state allows: the length of the student day.

FIGURE 2: HOW LONG IS THE SCHOOL YEAR—IN HOURS?



By multiplying the number of student school days with the reported hours per school day, the relatively flat findings from Figure 1 change quite dramatically and in a meaningful way. Figure 3 and Table 1 show the number of hours that students spend in school each year and the substantial variations that occur by looking at hours, not days.





The Chicago school district has the shortest student day, logging 1,001 student hours in a year, and New York City has the longest student day, logging 1,271 hours per year. New York students attended school 93 hours more than the average district in the sample and 270 hours more than students in Chicago, the equivalent of more than eight weeks of school in single school year. New York's students are getting the equivalent of about 14 more days of instruction than their peers in an average district and 41 more days of instruction than their peers in Chicago.

TABLE 1: THE STUDENT SCHOOL DAY AND YEAR

_	s in Stude :hool Year		Hours in a Week	Hours Per Year*	Number of Hours Over Six Years
Chicago	174	5 hours, 45 minutes	29	1,001	6,003
Dade County, FL	180	6 hours	30	1,080	6,480
Broward, FL	180	6 hours	30	1,080	6,480
Hawaii	180	6 hours	30	1,080	6,480
Los Angeles	180	6 hours, 10 minutes	31	1,110	6,660
Hillsborough, FL	184	6 hours, 15 minutes	31	1,150	6,900
Cobb, GA	180	6 hours, 30 minutes	33	1,170	7,020
Wake County, NC	180	6 hours, 30 minutes	33	1,170	7,020
Brevard, FL	180	6 hours, 30 minutes	33	1,170	7,020
Gwinnett, GA	180	6 hours, 30 minutes	33	1,170	7,020
Virginia Beach	180	6 hours, 30 minutes	33	1,170	7,020
Detroit	176	6 hours, 40 minutes	33	1,173	7,040
Denver	174	6 hours, 45 minutes	34	1,175	7,047
Cleveland	178	6 hours, 40 minutes	33	1,187	7,120
Fairfax, VA	183	6 hours, 30 minutes	33	1,190	7,137
Baltimore	180	6 hours, 40 minutes	33	1,200	7,200
Nashville	176	7 hours	35	1,232	7,392
Dallas	176	7 hours	35	1,232	7,392
Northside, TX	177	7 hours	35	1,239	7,434
Philadelphia	181	6 hours, 54 minutes	35	1,249	7,493
Mesa, AZ	180	7 hours	35	1,260	7,560
Houston	180	7 hours	35	1,260	7,560
Jordan, UT	180	7 hours	35	1,260	7,560
New York City	186	6 hours, 50 minutes	34	1,271	7,626

*The numbers in this column have been rounded.

Why Is New York So Strong?

Notably, New York City stands out with students in school for a scheduled 1,271 hours in the 2006–07 school year. Although the city's school day is not the longest (6 hours, 50 minutes per day, compared with 7 hours in several other districts analyzed), it more than makes up for these lost minutes by lengthening the school year to 186 days from the sample average of 179 days and the state of New York's 180-day requirement. It is important to point out, however, that New York's school year, while usually longer than most, does not always commit to the 186-day school year.

Why Is Chicago So Weak?

The collective bargaining agreement for Chicago, also an American Federation of Teachers (AFT) affiliate, paints quite a different picture from the New York agreement. It has both the shortest student school year and the shortest school day, resulting in dramatic deficits in student opportunity to learn. Chicago's unambiguous contract spells out what time school will start each day and when it will end. (It also contains a unique provision that gives teachers their 45-minute lunch period at the end of the day, offering teachers the opportunity to go home instead. Presumably, this allows schools to assign teachers to lunch duty.)

These data reveal the impact on student opportunity to learn that occurs when districts shave what seem to be small amounts of time off the school day, just 15 minutes. Putting aside the outlier of Chicago, the remaining 25 districts set a school day ranging from six hours (Hawaii, and Broward and Dade County, Florida) to seven hours (Dallas, Northside, and Houston, Texas; Mesa, Arizona; and Jordan, Utah). Philadelphia and New York, both of which have recently renegotiated contracts, approach nearly 7 hours, with 6 hours 54 minutes and 6 hours 50 minutes, respectively. A decision to provide a 6-hour 45-minute day over a 7-hour day reduces time in school by 1.4 weeks in one year.

Table 2 shows how these differences play out over six years of elementary school. Given that New York City does not always have a 186-day school year,² we selected the three districts closest to the New York City figure to serve as the controls: Mesa, Houston, and Jordan. Student opportunity to learn in these three districts is far greater than most other districts, with half the districts in the sample providing three to nine weeks less each year in instruction.

TABLE 2: HOW THE MINUTES ADD UP

District	Difference in Hours in One Year*	Difference in Weeks in One Year	Percentage Difference in One Year	Difference in Hours in Six Years	Difference in Days in Six Years	Difference in School Years in Six Years
Chicago	-260	-9	-26%	-1,557	-271	-1.51
Dade County, Fl	-180	-6	-17%	-1,080	-196	-1.10
Broward, FL	-180	-6	-17%	-1,080	-180	-1.01
Hawaii	-180	-6	-17%	-1,080	-180	-1.01
Los Angeles	-150	-5	-14%	-900	-146	-0.82
Hillsborough, FI	-110	-4	-10%	-660	-106	-0.59
Cobb, GA	-90	-3	-8%	-540	-83	-0.46
Wake County, N	C -90	-3	-8%	-540	-83	-0.46
Brevard, FL	-90	-3	-8%	-540	-83	-0.46
Gwinnett, GA	-90	-3	-8%	-540	-83	-0.46
Virginia Beach	-90	-3	-8%	-540	-83	-0.46
Detroit	-87	-3	-7%	-520	-78	-0.44
Denver	-86	-3	-7%	-513	-76	-0.42
Cleveland	-73	-2	-6%	-438	-66	-0.35
Fairfax, VA	-71	-2	-6%	-423	-65	-0.34
Baltimore	-60	-2	-5%	-360	-54	-0.29
Nashville	-28	-1	-2%	-168	-24	-0.13
Dallas	-28	-1	-2%	-168	-24	-0.13
Northside, TX	-21	-1	-2%	-126	-18	-0.10
Philadelphia	-11	0	-1%	-66.6	-10	-0.05
Mesa, AZ	0	0	0%	0	0	0.00
Houston	0	0	0%	0	0	0.00
Jordan, UT	0	0	0%	0	0	0.00
New York City	11	0	1%	66	10	0.05

*Based upon rounded numbers in Table 1.

Limitations

As one would expect, agreements and personnel handbooks are complex. Any findings derived from their inherent complexities make accurate comparisons difficult. For example, although we have data from 50 districts, we could include only 26 districts in our sample for this paper. To present accurate data requires much more than merely reporting what the agreements and handbooks state. It is necessary to call districts, talk to officials in the local union and in central offices, and run random checks with the schools themselves. This work is done to verify what is stated in formal language, interpret the language correctly, and look for additional sources of data. The more we learn about the data we have collected, the more we recognize the problems that prevent us from presenting a clean, unambiguous picture of how schools operate. We are working to ameliorate those ambiguities, which is one of the reasons why we will be posting the data in phases, instead of all at once.

Four general problems with the data as it appears in these agreements and handbooks are observed:

1. On many fronts, these agreements are surprisingly silent. Many people assume that collective bargaining agreements serve as the primary constraint on the ability of schools to be flexible and responsible. In fact, that blame may be miscast. Only a small number of the 50 agreements (usually in only the biggest cities such as Detroit, Los Angeles, New York, and Cleveland) contain the kind of detail that might give these contracts a "bad name." For the most part, users will find that agreements are relatively agnostic.

Although this problem would be a welcome surprise to many, for the purposes of research, the lack of data can be frustrating. For example, only about 40 percent of the agreements and personnel policies in the sample made reference to the length of the student school day, while only 26 percent made reference to the length of the instructional day. To the extent that the lack of data dispels a myth about the power of unions, the observation is significant.

2. The agreements are full of ambiguity and do not contain standardized data that allow simple comparison without additional investigation. In spite of having ready access to all sorts of data that would normally take weeks to collect, we faced roadblocks that must be reconciled before the database goes public.

Many ambiguities surround issues relating to the school calendar and the time children spend in school each day:

- Some districts spell out the student day, while others specify the length of the "student instructional day." The latter could easily be mistaken for the student day, but it does not actually tell us how many hours each day students are at school. Thus, seemingly similar contract provisions are actually incomparable.
- Because so many agreements and handbooks did not provide the length of the student day, we attempted to back into the student day by using the figure provided for the teacher workday. As might be expected in personnel materials, this figure was reported more frequently, but it proved too problematic to use consistently. We had assumed we could arrive at the length of the student day by starting with the length of the teacher day, subtracting the time that teachers must report in the morning as well as the time that they must stay after school is let out for the day. Many contracts, however, do not specify the before and after time teachers must be on site. Also, the calculation yielded all sorts of answers that are best described as 2 + 2 = 5. It may be that "before" and "after" times, even when listed in contracts, are approximations of what is expected of teachers, instead of firm requirements. Accordingly, as much sense as it might have seemed to make, we could not derive student school day by "backing into" the figure we sought.
- In spite of district practice to the contrary, our database reports only teacher hours that are worked on site. This restriction is not intended to fuel any debate over how much teachers work, but to provide a figure that was measurable and comparable among districts. To be more specific, a number of school districts describe the standard workday for teachers as eight hours, presumably mirroring the standard workday of most professions. Yet it is clear that a number of districts do not expect teachers to be in the school building for those eight hours. Los Angeles, in particular, explicitly states that the eight-hour workday includes time that teachers work off site. For our purposes, the Los Angeles strategy of counting time worked at home would open a Pandora's box. The data that we report in the database is only for teacher *on-site* hours, excluding any school districts that count time worked at home as time on duty.
- We adjusted data to accommodate the different ways in which districts report the student school year. In many districts, the student school year actually includes teacher professional development days; state law permits them to be counted as part of the instructional days that the state requires. For other districts, these days

- are not factored. This practice can lead to differences in the school year by as many as five days, a significant amount of time when making comparisons.
- We adjusted data to accommodate the different ways in which districts report the teacher year. Some districts, particularly districts in the South, interpret the number of teacher days to include paid holidays. In Northern states, paid holidays are generally excluded from the total count. When comparing agreements, it may look like teachers in the South spend a lot more time in school than teachers in the North, which is not the case.
 - 3. Not everything in the collective bargaining agreements is a provision that has been bargained. For example, many contracts refer to the school year as 180 days. The length of the school year is established by state law, not in collective bargaining or board personnel policies. It is not bargained unless the district decides to exceed the minimum set by the state. We are trying to accommodate these important distinctions in our presentation of the data on the site, so that the user will know the genesis of the data, be it state law, board policy, or a bargained provision.

The distinction between state law and agreement provision is not as clear as one might first assume. Just because the source of a provision is state law (or board policy), the provision may still be essentially the product of a negotiation. State laws are not made in a vacuum. Legislators are heavily influenced by organized voices that argue for or against a new law. In particular, they are heavily influenced by union lobbies, as well as state school chiefs and superintendents. So while state law is responsible for the 180-day school year, the process for arriving at the 180 days likely involves equally as much union and management input. Particularly in states in which there is no collective bargaining (there are seven such states), teacher associations generally rely on state law and school board policy to accomplish the same goals as would have been accomplished through a collective bargaining agreement.

4. The documents represent *policy* and not necessarily *practice*. A contract may stipulate that the school day is seven hours for all teachers. Many teachers exceed this requirement on a regular basis, and most teachers may not know they are supposed to work only seven hours in the school building.

This difference being noted, the agreements are still meaningful. In fact, their words matter a lot; otherwise, unions and districts would not find themselves at loggerheads for months, even years, negotiating the language of the next contract. For starters, real costs are associated with what is bargained. Without question, schools operate differently than they would absent these formal agreements, not always for what the agreements state but sometimes for what people *think* the agreements state. For good and for bad, these agreements have a real impact on schools and cannot be dismissed as irrelevant.

To accommodate these four limitations, all of the collected data were sent back out to districts and local unions for verification. This verification step did not prove to be all that helpful. Although new data were almost always provided, filling in many blanks, it usually was not clear from what authority the data were derived or if much care had gone into ensuring that answers were accurate. When a district and a union responded, their answers did not necessarily match. One district, for example, reported the school day as 6.5 hours, but the union reported it as 7 hours. The union provided the correct number of hours (including the time for lunch, as asked).

Both national arms of the two teacher unions were cooperative, giving us access to materials and expertise that they have, improving our definitions, suggesting questions we should pursue, and pointing out when our questions seemed biased or loaded. We are particularly indebted to the AFT for the time they spent helping us improve the site.

Conclusion

The simple comparisons presented here precipitate a more profound question for research. Do districts like New York City and Mesa, Arizona, have higher achievement levels for students than districts like Chicago, or Dade County, Florida? The question is not a simple one to answer and is beyond the scope of this paper; however, it is most likely a question that requires an analysis of many school years of data—the length of a child's elementary years, for instance. This long-term approach would be necessary not only to realize the impact of a school day that is 30 minutes shorter over, say, 6 or 10 or 13 years, but also to accommodate variances in teacher quality. Such a study would have to provide some evidence on the overall quality of teachers in districts in New York City versus districts in Chicago, not an easy factor to isolate.

Research questions aside, it seems that this issue shares a lot in common with other issues relating to teacher quality. Any remnants of the debate over the need for teacher expertise in subject matter knowledge, for example, are spurious. A teacher who knows a subject is better equipped to teach that subject than a teacher who does not know a subject. In this instance, it is common sense that more instruction can be provided on average in a seven-hour school day than in a six-hour day. Certainly, as illustrated in the example provided here, schools can provide a more comprehensive schedule that meets children's full range of instructional, physical, and social needs. What follows from longer school days may be at the whim or efficiency of the individual teacher and even school, but the answer is ultimately obvious. Although it is left up to teachers and schools to use that extra 30 minutes to an hour a day either poorly or well, more instruction certainly occurs during that extra time than is ever likely to occur after the dismissal bell rings.

Appendix.

An Effective Day in a First-Grade Classroom

Length of Day: 7 hours

8:00 through 8:15

Opening Business: Pledge, Announcements, Attendance

8:15 through 8:30

Opening Activities, whole class (not all activities are done every day)

- Warm-up activities to encourage student engagement
- Language assessments (once a week)
- Homework, review and check
- Decoding drills, especially those involving choral responses, including alphabet/sound routines, nonsense words
- Timed math drills

8:30 through 8:55

Teacher read aloud and class discussion or writing assignment, nonfiction topic in history and science

8:55 through 9:55

Small Group A

Decoding practice with teacher: 30 minutes

Small Group B

Decoding practice with teacher: 30 minutes

While teacher is working with small groups:

Independent and Remedial Activities

- Partner reading
- Comprehension and skill work
- Math problems
- Listening and responding to recorded read-alouds to reinforce student listening and understanding
- · Decoding and language remediation with tutor

9:55 through 10:15

RECESS

Followed by quick refocus activity for whole group: sound/symbol routines

10:15 through 10:45

Spelling, Grammar, and Usage, whole class

Includes phonemic awareness; spelling by sounds, type of word, and context; spelling of high-frequency words, conventions for writing and speaking sentences, and handwriting.

10:45 through 11:45

Mathematics

11:45 through 12:15

Small Group Reading C

Decoding Program: 30 minutes

Groups A and B work independently on math and reading

12:15 through 12:45

LUNCH

12:45 through 1:00

Teacher Read Aloud: Language & Literature, whole class

The teacher reads selected literature out loud to the class.

1:00 through 1:20

Language Remediation, small groups to whole class

Daily 20-minute remediation lessons in language that are best taught by the teacher. In high-poverty schools, remediation will most likely need to be scheduled for whole-class instruction.

1:20 (1:00 for some) through 2:05

Specials

Art, music, physical education, library

2:05 through 3:00

Social Studies or Science

Endnotes

New York's recent renegotiation with the local AFT affiliate of its teacher contract extended the school year by two days, but the greater number of instructional hours this year goes beyond these two extra days to the flexible system of calendar development used by the city. Instead of specifying the number of student days in the collective bargaining agreement, the agreement simply states that teachers will report the Thursday preceding Labor Day and will work through the month of June excepting the last two weekdays. Besides a requirement for a minimum of three professional development days, the school is free to have as many student days as it would like within these broad limits.

In some years, the number of days decreases because more state holidays will fall on weekdays or because of unforeseen circumstances; during the 2005–06 school year, for example, schools were closed for two days to complete emergency test scoring. This is not a problem as long as schools stay above the state minimum of 180 "instructional days" (of which 4 days may be used for professional development). New York City routinely exceeds the minimum and in general seeks to maximize instructional time within their broad framework. Thus, in a year like this one, in which fewer holidays fell during the weekday, they are able to achieve an impressive 186 teaching days.

² Ibid.

The Case for Broadening Veteran Teachers' Education in the Liberal Arts and How We Can Do It

Sandra Stotsky

An education consultant and member of the Massachusetts Board of Education

Conservative commentators on the quality of our undergraduate curricula have found much to criticize in recent decades. In an essay, "Liberal Education, Then and Now," based on a lecture given in honor of the 200th anniversary of John Stuart Mill's birth, Peter Berkowitz summarizes the thrust of their charges: "The undergraduate curriculum lacks a unifying purpose, intellectual standards have been allowed to deteriorate, undergraduate education is increasingly oriented toward preparing students for jobs, and faculty neglect students in favor of scholarship."

Liberal commentators have also found much to deplore. Derek Bok's most recent book, *Our Underachieving Colleges: A Candid Look at How Much Students Learn and Why They Should Be Learning More*, details his major charges:

Many seniors graduate without being able to write well enough to satisfy their employers. Many cannot reason clearly or perform competently in analyzing complex, nontechnical problems, even though faculties rank critical thinking as the primary goal of a college education. Few undergraduates receiving a degree are able to speak or read a foreign language. Most have never taken a course in quantitative reasoning or acquired the knowledge needed to be a reasonably informed citizen in a democracy. And these are only some of the problems.¹

In 2005, the U.S. Secretary of Education convened a task force to gather information and make recommendations for the reauthorization of the Higher Education Act. In its final report in 2006, the Commission on the Future of Higher Education strongly criticized the quality of the education that American students receive in grade school and high school. It deplored a lack of data and accountability measures in higher education. But it did not specify the kind of data that ought to be collected and for what exactly higher education should be held accountable. Nor did it raise questions about the long-term effects of the changes that have taken place in college curricula on one large group of undergraduates—those who become public school teachers.

Indeed, little attention has been paid over the years to the quality of the undergraduate education experienced by students who are simultaneously enrolled in teacher preparation programs, particularly if they majored in education. And when some attention was paid, the advice was mostly ignored. In 1986, the Holmes Group, a coalition of education school deans seeking to reform teacher education, issued a report, "Tomorrow's Teachers," that recommended in effect five-year preparation programs. The report proposed that all future teachers have a strong major in the arts and sciences and an additional year of post-baccalaureate preparation that could lead to a master in education degree. It clearly recognized that undergraduates in teacher preparation programs, especially if they majored in education, could not easily obtain a strong liberal education. Few states, however, followed the Holmes Group's original recommendations, although some began to require an arts and sciences major for all future teachers. Undergraduate teacher preparation programs are still the major source of public school teachers in this country, as noted in a June 2005 report by the American Educational Research Association.

The purpose of this essay is to suggest various ways in which the liberal education of current teachers might be extended through their professional development requirements to compensate for the many deficiencies in their undergraduate education. To help readers better understand the basis for these suggestions, I explain first how several trends in higher education over time have diminished both the quality of undergraduate education and the quality of the pool of undergraduates preparing for a teaching career. I then explain how policies that local school districts formulated for salary schedules and professional development not only failed to compensate for these deficiencies but, in effect, deepened them.

Trends in Higher Education

Until five decades ago, most undergraduates at our colleges and universities, including those intending to be teachers, fulfilled academically relevant and rigorous distribution requirements. In the 1960s, campus revolts against the requirements of a common core of knowledge for all undergraduates (and ultimately against the possibility that one could even exist) resulted in an explosion of electives to fulfill distribution requirements or, in some colleges, in their total elimination altogether. Student demands also led to the proliferation of artificially constructed majors often called area studies, special majors, or concentrations. Few, if any, prominent educators warned against the consequences of these developments for those who would

become the next generation of public school teachers. Nevertheless, allowing all students to select less intellectually rigorous courses and to major in a politically popular but non-discipline-based area of interest could not help but weaken the academic background of those who would go on to teach in our public schools.

The likely consequences of a relatively requirement-free liberal education should have begun to arouse concern when the pool of academically able students planning to become teachers began to decrease. We know that the pool gradually decreased as academically able students, male and female, increasingly chose to pursue serious graduate study in the arts and sciences or other professions rather than teach in a public school.² Other reasons may have contributed to this decline. Not only were opportunities to enter a wide variety of professions opening up for ambitious and able women, but it is also possible that socially aware college students were reluctant to teach in an institution that was trashed as oppressive. This trashing was found not only in book after book by such best-selling authors as Jonathan Kozol and other followers of Paulo Freire—the most influential educator of the twentieth century according to college and university educators—but also in the schools of education themselves. Yet, it is hard to find any educator raising questions about the quality of the undergraduate pool from which public school teachers were coming—weaker students receiving a weaker academic education.

Whether prospective teachers majored in an academic discipline, in an area study, or in education itself, the undergraduate education they received was further shortchanged by the low quality of their licensure programs. The requirements of undergraduate licensure programs had increased over the years to address the various social, cultural, and linguistic issues that education faculty saw as necessary for preservice teachers—resulting in a typical training program whose content Arthur Levine described in "Educating School Teachers" (a highly critical report on teacher education released in 2006) as "unruly and chaotic." After visiting or conducting surveys in hundreds of institutions across the country, the former president of Teachers College, Columbia University, and his research staff observed that most teacher training programs suffer from low standards, out-of-touch faculty, and poor quality control.

As the quality of undergraduate teacher training programs decreased, their course work nevertheless took up more and more academic time. For example, for more than two decades after the Massachusetts legislature mandated teacher licensure in 1956, state regulations required only 12 credits in education courses (plus student teaching). After the 1982 revision of the regulations, a minimum of 21 cred-

its in education courses (plus student teaching) was required.³ Moreover, the total number of credit hours that the institutions themselves required in their undergraduate teacher preparation programs was usually much more than the state minimum. Although it varied widely from institution to institution and for the same license, it used up a significant portion of the credit hours toward a bachelor's degree. In 2002, further changes were made in state regulations, one of which reflected the legislature's requirement in 1994 of an arts and sciences major for prospective teachers (although it did not rule out the possibility of two majors, one of which could be an education major). In the wake of these changes, the Massachusetts Department of Education conducted a survey that identified the percentage of total credits required in education course work (including student teaching) as part of the total credits required for a bachelor's degree. These credits ranged from 16 percent to 39 percent in foreign languages, from 13 percent to 39 percent in science, from 13 percent to 42 percent in mathematics, from 22 percent to 51 percent in elementary education, and from 25 percent to 59 percent in special education.

Those most shortchanged by a diminished and impoverished liberal education were those undergraduates who planned to teach self-contained elementary and special education classes, whether or not they had two majors—one in an academic discipline and one in education. Not only did their licensure programs tend to have the most education requirements, as the above percentages indicate, but their arts and sciences major was usually not in an academic discipline taught in K-12. Instead, their major was in a social science such as psychology, sociology, or child development, which was an ironic development unanticipated by the reform-minded legislature that had eliminated the education major. (Prospective elementary, early childhood, and special education teachers, not surprisingly, went for the least-demanding majors they could find once they were required to have an arts and sciences major.) This phenomenon meant, as one scenario, that the prospective elementary teacher majoring, say, in psychology might need to use up to 60 of the 120 credit hours toward a bachelor's degree in required education course work alone and another 36 credit hours in required course work in his or her major. This would leave the undergraduate precious few credit hours for arts and sciences courses in the subjects he or she would actually teach (i.e., history, mathematics, science, and geography), never mind for courses providing cultural enrichment in art or music history or course work in the performing arts.

Lack of Incentives in Professional Development

Once prospective teachers graduated and began teaching, the absence of a strong foundation in the liberal arts was then compounded by the lack of requirements for professional development that might in some small way supplement their limited liberal education. In fact, incentives usually are lacking for teachers to continue their education in the arts and sciences at all.

Salary Schedule. The salary schedule in most school districts makes no distinction between a master of arts or sciences degree and a master in education degree, and the latter is much, much easier to obtain. Schools of education regularly offer late afternoon or weekend courses, and many also provide credit-bearing course work right in teachers' own school districts. Arts and sciences faculty rarely are so obliging. As a result, few teachers who have completed undergraduate licensure programs choose to take graduate courses in the subjects they teach and to complete master's degrees in the arts and sciences. Most teachers eventually get a master in education degree, usually to increase their salary, whether they teach a core subject (such as science or English) or are generalists (as is the elementary and special education teacher). It seems to matter little to them or to their school administrators or school boards that the course work for a master in education degree may be totally unrelated (as well as mind-numbing, if not mindless) to the core subject(s) taught by the teacher.

Professional Development Credits. The criteria for earning professional development credits rarely if ever make a distinction in quality and credits earned between attendance in a pedagogical seminar and attendance in a discipline-oriented seminar. Moreover, opportunities to earn professional development credits on strictly pedagogical or curricular matters in the teacher's school arise in an expanding variety of ways—from serving on curriculum revision committees to attending in-service presentations by speakers selected by the administration to address hot-button social problems. All may be legitimate activities for earning professional development credits. Rarely, however, do they serve to deepen teachers' knowledge of their own discipline or broaden their understanding of other subject areas in the school curriculum.

In an ironic twist, those teachers who have had a strong liberal education in a selective college, like the teachers coming from Teach For America (TFA), tend not to continue in the classroom after two or three years of teaching. In a 2006 study of the relationship between about 10,000 "certified," "uncertified," and "alternatively certified" teachers of reading and mathematics in grades four through eight and their students' scores on state tests in mathematics and reading in New York City's

schools over a six-year period, Thomas Kane, Jonah Rockoff, and Douglas Staiger found that teachers from traditional training programs were generally no more or less effective than teachers from alternative (or no) programs, including a large number from TFA. More variation in effectiveness could be found within each status group than among them. Fortunately, despite the high turnover rate for the TFA teachers and thus little accumulated teaching experience, there was little difference in their effectiveness in comparison with teachers with greater longevity in the New York City schools. In other words, students were not penalized by the rapid turnover of higherachieving teachers; they gained enough from these able new teachers to compensate for their lack of teaching experience. What has not been explored, so far as I am aware, is the role that the differential in the salary schedule between teachers with and without master's degrees may play in accelerating these TFA teachers out of the classroom after a few years. Faced with the prospect of enrolling in an easy-to-manage but substance-less master's degree program in education to increase their salary base, or to enroll in a far more intellectually stimulating graduate program that would not be easy to manage while teaching full time (but that could lead to more professional options in the future), they may understandably opt to leave teaching.

How Professional Development Can Make Up for a Liberal Education Lost Peter Berkowitz suggests that the defining qualities of an educated person are as follows:

...the ability to explore moral and political questions from a variety of angles. This involves putting oneself in another's shoes, distinguishing the essential from the contingent, imagining the contingent as other than it is, and reasoning rigorously without losing sight either of what is or what ought to be.⁵

In his judgment, these distinctive qualities of "mind and character" come from an education that expects students "to read widely and deeply, to acquire knowledge of the opinions and events that formed them and the nation in which they live, and to study other peoples and cultures." Undergraduates who have simultaneously completed a teacher licensure program and a bachelor of arts degree program could not have experienced the range of demanding course work that develops the qualities that Berkowitz enumerates. This range is what we have always understood by a "liberal education," of which historical knowledge is an essential component. So, what

might education policymakers do to help make up for the spotty liberal education that most of the current teaching force has received?

Free Seminars. First, at a specific level, veteran teachers need to be provided with more opportunities to attend free seminars, such as those sponsored by the National Endowment for the Humanities, the National Endowment for the Arts, the Gilder-Lehrman Institute of American History, and the Center for Civic Education. These discipline-centered seminars typically range from one to four weeks and are taught by carefully selected scholars, researchers, and other professionals in the humanities and the arts. These seminars seek to foster a deep understanding and appreciation of a specific topic in a discipline or art. This is often achieved by concentrating on an "anchor" work in its historical and cultural context or on a thematically related cluster of historically and culturally significant texts or objects of art (e.g., the seminal documents underlying the American founding, the architecture of an important public building, or the paintings of a prominent American painter), with or without direct relevance to what the teacher could be teaching in a typical public school.

The primary purpose of such seminars is to provide a broadening intellectual experience similar to a graduate course in the arts and sciences for teachers who cannot easily spend time at or afford a full semester or summer in a university course. It may strengthen their knowledge base in a discipline that is relevant to the subject they teach, but it doesn't necessarily have to. Such seminars, which try to (or should) keep to a minimum a consideration of "best practices" for the classroom, have been offered by federal and state agencies (often through humanities or arts councils), foundations, and a variety of other nonprofit organizations. The major problem that remains to be worked out for many of those professional development seminars now available to teachers is a mechanism to guarantee their intellectual integrity, such as an academically distinguished and inclusive advisory board that can publicly be held responsible for the intellectual quality of the speakers, texts, and learning experiences provided to participants (i.e., the board is not window dressing). For a disciplineoriented seminar to extend teachers' intellectual horizons, its chief if not only goal must be learning for learning's sake, as in an authentic course in the arts and sciences. As soon as a seminar becomes a workshop, its real (and time-consuming) goal becomes a curriculum project for the teacher's classroom. To compensate for a lost liberal education, teachers need seminars, not workshops.

License Renewal. Second, to support these kinds of professional development seminars, states need to thoroughly revise the criteria for what counts for credit

toward the renewal of a teaching license. Few if any states give lifetime licenses any more. Instead, almost all now require completion of a specified number of professional development points, clock hours, or semester hours in college courses for renewal of a teaching license, according to the Web site for the National Association of State Directors of Teacher Education and Certification. What might count, over each five-year period, say, are two authentic graduate courses or seminars that can be considered culturally enriching—one in the teacher's own subject area, and the other on a topic that could be considered intellectually broadening but that is also discipline-based. This kind of policy could be enacted by a state board of education or legislature. Local school districts could expect more than two authentic graduate courses or seminars for purposes of their own salary schedule, but the state's interest should lie primarily in cultivating teachers' minds.

At present, almost any educational activity in which teachers engage can be awarded professional development credits, and many of these activities are of great use to the local school district (such as participation in revising the school's curriculum, advising the student newspaper, or coaching a debating club). No body of sound research, however, connects the outcomes of professional development as we know it to increased student achievement. Although the limited evidence available suggests the benefits of professional development that is aimed at the education level and specific subject that teachers teach, it is doubtful that we can find a clear, direct relationship between the specific content of a professional development workshop and subsequent student achievement. This relationship is hard to identify because of the many variables (e.g., the textbooks and other materials used, students' reading level, tutoring by parents or others, and, last but not least, the quality of the assessments used to determine both teacher and student growth) that intervene between what a teacher may have learned from a workshop and what students then demonstrate having learned in that teacher's classroom. It would be much better to have more modest expectations about the benefits of professional development and to spend far less money trying to backload what teachers should have learned in their undergraduate years and in their licensure program. Let professional development enrich teachers' minds so long as the learning experience is structured in a rigorous academic way.

Degree Programs. Third, to support this more modest goal, school boards should reward core subject teachers more highly for earning a degree awarded by arts and sciences faculty for course work in an academic discipline rather than for a master in education degree. This would be an elitist policy, and rightly so. Work for a

master of science or master of arts degree is far more intellectually demanding than that required for a master in education degree. If we want more knowledgeable core subject teachers, they should be offered a monetary incentive to take authentic graduate courses in their discipline toward an arts and sciences degree rather than content-empty courses in a degree program in education—with expenses reimbursed by their districts. This is a policy that should be worked out via collective bargaining with local teacher unions. School boards should approve the courses their teachers take and reimburse them fully once they complete them satisfactorily. Core subject teachers must also be reimbursed for taking arts and sciences courses outside of the subject they teach—for example, a course in music theory for a physics teacher—and encouraged to consider online courses as well as courses at local colleges and universities because they can be taken at the teacher's pace at any time of year.

Research Grants. Fourth, federal lawmakers could revise existing requirements for the Public Outreach line item in higher education research grants. The revised requirements should specify school-based lectures by grant recipients in a subject taught in the secondary school or field trips to historic sites, museums, or natural phenomena accompanied by well-trained docents. Attendance by district teachers could fulfill in-service requirements or earn professional development credits.

Philanthropic Involvement. Fifth, astute philanthropists could step in and pay the fees that leading scholars, scientists, and other professionals command for preparing and giving suitable talks to school teachers on intellectual or artistic work in their discipline. Most teachers would be far more eager to attend a talk on American history by David McCullough or Gordon Brown or a poetry reading by Helen Vendler or Robert Pinsky in their school district than a workshop on school violence given by an up-to-date education entrepreneur—the more likely kind of inservice presentation arranged for most teachers.

Summer Externships. Sixth, state and local education agencies and organizations should work out arrangements with local industries, museums, and other institutions to hire teachers as summer externs to work with experts in their subject area. For example, one of the projects associated with the Massachusetts Science, Technology, Engineering, and Mathematics (STEM) Initiative, founded by the dean of the college of engineering at the University of Massachusetts-Lowell, is the Teachers in Industry Program (TI-IN). Founded in 1997 with the objective of helping teachers understand the work environment in industry and the job skills required by employers, it arranges for teachers to spend a six-week externship during the summer work-

ing on a real-world project that the employer sponsor has assigned to them. The teachers are expected to bring back their knowledge and insight to their classrooms.⁸ It is unlikely that enough such externships will ever be available for large numbers of teachers, but these kinds of work experiences should be awarded a significant number of professional development credits to encourage more of them. These externships not only supplement teachers' salaries but also upgrade their subject matter knowledge and help them to better understand the real-world applications of their subjects.

Final Remarks

All the suggestions I have laid out are possible. To implement these programs would cost much less than we now lay out for remediation of our teaching corps through something misleadingly called professional development. It is difficult in theory to justify the millions, if not billions, of dollars spent on giving already licensed teachers basic reading instructional knowledge (e.g., through Reading First, the K–3 part of NCLB) and basic mathematical and scientific knowledge (e.g., through the Math and Science Partnership Program sponsored by the National Science Foundation and the U.S. Department of Education) when the teachers in these programs should have acquired this knowledge before they began teaching, cost-free to the public. Although these programs appear to result in increased student achievement, they shouldn't be necessary. What would be less costly is the courage needed by education policy makers to tell the public why so many teachers are academically underqualified and need so much "professional development" and to address the problem at its roots.

The greatest opposition would likely come from two sources: the education schools and the hordes of professional development providers that swarm over our K–12 schools. Education schools have a major grip on teacher training despite all the accelerated routes that states have made available for those who want to teach without going through a full licensure program. Indeed, if anything, educators loudly advocate for more education course work for prospective teachers, not more arts and science course work. Arthur Levine's recommendations on this issue, for example, are to eliminate four-year teacher preparation programs and to prepare teachers in five-year programs, to be concentrated only at research universities with higher admission requirements. He has almost nothing to say about strengthening their arts and sciences education.

Education school faculty would be joined in their opposition to a strengthened liberal education for prospective teachers by the army of education entrepreneurs now providing professional development. The latter make their living providing remedial programs in reading, mathematics, history, and science to the academically underqualified teachers whom the education schools regularly pass on to the nation's public schools. Each source of opposition is highly unlikely to permit changes that would reduce the size of their captive audience.

A giant step forward could be achieved by one relatively simple policy. State legis-latures could eliminate undergraduate licensure programs overnight by removing all credit for undergraduate education course work. This policy would immediately address the impoverished liberal education that most undergraduates intending to be core subject teachers now receive by enabling them to have a full four years of a liberal education. And a one-year post-baccalaureate teacher preparation program, culminating in a master's degree, would enable them to begin teaching at a higher salary and without any need to spend some of their time on course work for such a degree. Would there be a teacher shortage? We already have one in key subjects: mathematics, science, and foreign languages. But we would be unlikely to have a shortage in other areas, because we already prepare many more elementary and early childhood teachers than we can employ.

There is perhaps a more compelling reason for removing all credit for undergraduate education course work and for not turning undergraduate teacher licensure programs into the five-year programs Arthur Levine recommends (he would make the fifth year a full year of student teaching). Training programs that begin in the undergraduate years tend to attract the weakest undergraduates into teaching, at the elementary school level in particular. A July 2005 report issued by the National Center on Education Statistics corroborated earlier reports that college graduates who go into teaching after completing undergraduate licensure programs are apt to have lower Scholastic Aptitude Test and American College Test scores than those who don't go into teaching. They are also apt to have higher undergraduate grade point averages, which suggests that education courses are easier than other courses. A recent report from the National Center on Education and the Economy noted that a large number of U.S. teachers are drawn from "the bottom third of the high school students going on to college."

In effect, graduates of licensure programs that begin in the undergraduate years end up with an impoverished liberal education for their bachelor's degree. Although some potential teachers might be lost to other careers that can be pursued right out of college or to a lack of interest in adding another year or more of study in a professional preparation program (although this is exactly what librarians and social workers do), our public schools would gain a more liberally educated, academically stronger, and more motivated corps of teachers in return.

References

- Bok, D. (2006). Our Underachieving Colleges: A Candid Look at How Much Students Learn and Why They Should Be Learning More. Princeton: Princeton University Press.
- Berkowitz, P. (December 2006–January 2007). "Liberal Education, Then and Now." *Policy Review* 140: 47–68.
- Commission on the Future of Higher Education. (September 2006). *A Test of Leadership: Charting the Future of U.S. Higher Education*. Washington, D.C.: U.S. Department of Education.
- Holmes Group. (1986). Tomorrow's Teachers. East Lansing, MI: Author.
- Hoxby, C., and Leigh, A. (2005). "Wage Distortion: Why America's Top Women College Graduates Aren't Teaching." *Education Next* (spring). Available at www.educationnext.org/20052/50.html.
- Kane, T., Rockoff, J., and Staiger, D. (2006). What does Certification Tell Us About Teacher Effectiveness? Evidence from New York City. Cambridge: Harvard Graduate School of Education.
- Levine, A. (2006). Educating School Teachers. Washington, D.C.: The Education Schools Project.
- National Center on Education and the Economy. (2006). *Tough Choices or Tough Times*. Washington, D.C.: National Center on Education and the Economy.
- Stotsky, S. (2004). *The Stealth Curriculum: Manipulating America's History Teachers*. Washington, D.C.: Thomas B. Fordham Institute.
- Stotsky, S. (2006). Savage Inconsistencies: Kozol's Intellectual Confusions. A Review of Jonathan Kozol's The Shame of the Nation: The Restoration of Apartheid Schooling in America. Pioneer Institute Web site. Available at http://www.pioneerinstitute.org/pdf/06_kozol_bookreview.pdf.

Endnotes

- ¹ Bok, Our Underachieving Colleges, pp. 1-8, 310-312.
- ² C. Hoxby and A. Leigh, "Wage Distortion: Why America's Top Women College Graduates Aren't Teaching," *Education Next* (Spring 2005), available at www.educationnext.org/20052/50.html (accessed April 21, 2007, at http://findarticles.com/p/articles/mi_m0MJG/is_2_5/ai_n1).
- Personal communication from Dr. Margaret Cassidy, program approval officer in the Massachusetts Department of Education from 1981 to 2004.
- ⁴ Having a master's degree can make a big difference in a teacher's salary. For example, in Brookline, Massachusetts, a teacher with just a bachelor of arts degree earns \$41,065 the first year, \$43,318 the second year, \$45,570 the third year, and \$47,816 the fourth year. A teacher with a master's degree earns \$43,784 the first year, \$46,105 the second year, and \$50,751 the third year. A third-year teacher with a master's degree thus earns much more than a fourth-year teacher with only a bachelor's degree. As soon as a teacher earns a master's degree, the teacher's salary schedule moves from the first set of increases to the second set.
- ⁵ Berkowitz, "Liberal Education, Then and Now," *Policy Review* 140 (December 2006–January 2007): 53.
- ⁶ What must be avoided are the kinds of professional development institutes I describe in detail in *The Stealth Curriculum*. In the humanities, especially, many professional development providers

- offer workshops that have ideological, not academic, goals. Their materials or speakers may provide inaccurate or one-sided information to get teachers and their students to think in specific ways about particular social issues or historical figures and events.
- ⁷ Information is missing for a few states, so it is unclear whether any state now gives teachers a lifetime license. The number of professional development credits required for license renewal ranges from 45 to 180, typically over a five-year period. The number of semester hours of college courses, if required, also varies from state to state.
- Since 1997, TI-IN has placed 85 teachers from 28 school districts with 39 different employers. Seventy percent of the teachers have come from high schools and 30 percent from middle schools. Twenty-one percent were science teachers, 18 percent mathematics, 18 percent English, and the balance from a wide array of specialties.

Do We Need Strong Liberal Arts Curricular Materials?

• • •

Joan Baratz-Snowden

President of the Education Study Center and former director of the Educational Issues department of the American Federation of Teachers

Creating and Distributing Strong Materials

The humanities and the social sciences are essential to achieving our educational goals for children. To that end, we should create and distribute strong curricular materials for teachers. But doing so presents us with the following pressing questions that must be addressed:

- Why haven't we distributed strong curricula?
- How can we remedy the situation?

Why Haven't We Distributed Strong Curricula?

There are a number of explanations for the failure to create and widely distribute high-quality liberal arts curricula. Just some of these reasons include (1) the meaning of curriculum, (2) the nature of knowledge, (3) who decides what's included in such curricula, (4) curriculum adoption, (5) the economics of the textbook and education materials industry, (6) teacher knowledge, (7) the use of school instructional time, and (8) the implementation of the No Child Left Behind (NCLB) accountability systems.

The Meaning of Curriculum. In 2001, when the American Federation of Teachers (AFT) examined state curricula in the core areas of English language arts, mathematics, science, and social studies, the union found them to be woefully inadequate and concluded:

the absence of clear, manageable curriculum contributes to current problems with our standards based reform efforts, and may also help to explain the disparities revealed when American student achievement is compared with that of students from other countries. U.S. curricula focus more on quantity than quality and teachers are expected to cover a dizzying array of subjects every school year.... Given that each teacher acts independently in culling the wide array of topics, one cannot be confident from year to year about what precisely a student had been exposed to thus making it difficult to build on prior learning.¹

This is not a problem of the humanities versus the sciences; this is a structural problem in American education.

The Nature of Knowledge. A curriculum is not neutral. It makes a statement about what is legitimate knowledge. It represents choices. And those choices are frequently made as a result of complex power relationships and struggles among diverse groups that are often identifiable by class, race, gender, and religion. Such choices frequently lead to controversy.² Despite the continuing curricular wars (in math and science, for example), school personnel tend to avoid controversy and, when possible, will opt for materials likely to engender little concern from parents, community spokespersons, and policy makers.

Who Decides What's Included? The recent flap in Kansas over teaching evolution is an excellent example of the controversial nature of curriculum and the issue of who decides what is to be learned—evolution falls in or out of the state curriculum with each newly elected state board of education.³ The influence of the Gablers, an influential, rightwing couple who reviewed textbooks in Texas, is another case in point. Statewide adoption had an enormous influence on what content publishers were willing to put in or leave out of their history texts. Because of this influence, the Gablers held tremendous sway over what went into history texts nationwide.

The introduction of E.D. Hirsch's "core curriculum" also exemplifies this controversy over who decides what information is included. The central criticism leveled at Hirsch was his audacity to decide "what every child should know." His initial efforts were roundly criticized as being too white and Eurocentric—too representative, in the eyes of his opponents, of a canon that was out of date and irrelevant to the lives of many American children. It has taken well over a decade, and many changes in the original curriculum, to get Hirsch's core curriculum materials accepted in about 800 of more than 150,000 U.S. schools.

Another example can be found in the controversy over *Man: A Course of Study* (MACOS). In the late 1960s and early 1970s, in reaction to concern that U.S. education materials were likely to leave us at a disadvantage in the scientific race generated by Sputnik, the National Science Foundation (NSF) gave Educational Services Incorporated (now known as Educational Development Corporation) funds to develop curricular materials for K–12 schooling. Although the bulk of their effort was in the natural sciences and mathematics, they also developed a social science course, MACOS. The MACOS curriculum was hailed in 1969 by the American Educational Research Association and the American Educational Publishers Institutes as "one of the most important efforts of our time to relate research findings and theory in educa-

tional psychology to the development of new and better instructional materials" and as "enormously suggestive of what we could and should be doing to equip the instructional process adequately," but by 1975, the curriculum was the center of a congressional debate. One congressman condemned MACOS as a program that threatened "to mold children's social attitudes and beliefs along lines that set them apart and alienate them from the beliefs and moral values of their parents and local communities." Indeed, the House of Representatives voted to have NSF pass all their grants through Congress before they could be awarded. As a result, NSF quickly cut off funding for further development of MACOS, and the acclaimed curriculum disappeared from public schools. Subsequently, other federal agencies became "twice shy" about developing rigorous K–12 curricular materials.

Curriculum Adoption. But the issue of content itself is only one brick in the wall that keeps innovative curricula out of our schools. Another problem is curriculum adoption. A case in point is the limited use of the excellent NSF-funded materials in science and mathematics and the curriculum materials in the arts and humanities developed with funding from the National Endowment for the Humanities and the National Endowment for the Arts. One contributing factor to the lack of adoption is that districts not only have to purchase the curriculum materials, but in many instances, unlike with commercially available curricula, must also make considerable investments in preparing teachers to use those resources. Many districts are reluctant to expend the time and money that are required for this training. In addition, although commercial developers can take advantage of established supply chains, the federally funded curriculum developers rarely have funds for dissemination.

The Economics of the Textbook Industry. Much has been written about the textbook industry and why texts seem to have been stripped of rich materials, instead becoming pallid, politically correct tomes. One reason for this sorry state of affairs is that the academy has generally turned a blind eye to K–12 education. Scholars don't take K–12 materials seriously. They do not review the texts in their journals for intellectual quality or even for factual accuracy. Dan Lacy, a former vice president at McGraw-Hill has another interesting take on this issue. Among the explanations he puts forth for why "the juice, the vitality, the idiosyncrasy ... seems to have been blanched out of late 20th century textbooks" are competition in the industry and a desire to produce "what is wanted." About competition, he writes, "one of the myths of American life today is that a large number of producers will assure the diversity and high quality of what is produced." He continues:

Textbook adoptions are not so much a selection of books for their virtues as a process of elimination of books for their vices. What is left is likely to be the book that has offended no one rather than the book that has extraordinary virtues that are perhaps novel, idiosyncratic, or different. ⁸ Producing textbooks is an expensive proposition—indeed, a series can run into the millions of dollars, and publishers are not going to gamble on their bottom lines by including controversial subjects. They will give the textbook committees what the committees desire.

Teacher Knowledge. The abovementioned problems plaguing K–12 schools are also a problem for postsecondary education, which in turn affects the quality of the U.S. teaching force. K–12 teaching candidates who graduate with a watered-down training in the liberal arts will struggle in their efforts to teach the liberal arts to young students. You can't teach what you don't know.

Although all students must take a core of required liberal arts and sciences courses when they enter college, the breadth and quality of this course work is crucially important to prospective teachers, particularly for the many elementary and middle-school teachers who receive a great deal of their content preparation in those required courses. Yet in too many cases, colleges lack a fully coherent or rigorous general liberal arts and sciences curriculum in the first two years for prospective teacher candidates. Typically, students sample widely among the varied disciplines based on any variety of personal considerations. This may or may not be appropriate for most college students, but it is certainly a problem for teacher candidates. These teachers-in-training need a set of courses that provides them with broad exposure to and a sound foundation in the habits, subjects, and information that are relevant to what K–12 students are expected to know and be able to do.

Instructional Time, Accountability, and NCLB. It is not unusual for folks to argue that one reason that we cannot inject more liberal arts into the curriculum is that instructional time is limited, and the demands of NCLB accountability require that schools focus on what is tested. There is evidence that the curriculum in many schools, particularly in poor and minority neighborhoods, is being narrowed by the relentless concern for meeting the Adequate Yearly Progress demands of the No Child Left Behind legislation with its focus on reading and mathematics, and soon science, and that other subjects, such as art, music, and foreign languages are being crowded out of the school day. But the greater emphasis on the NCLB tested subjects is by no means dramatic or universal.

Instructional time is a fungible commodity. It may well be the case that we are not spending the time wisely rather than that there is a need for more time if we are to improve humanities instruction in the public schools. The fact that schools may be spending more time on reading instruction does not mean that the time spent on reading instruction could not also be used for rich experiences with literature. There is now a hue and cry for extending the school day and school year to provide more instructional time for children. While it is foolish in the 21st century to be operating schools on a 19th century agrarian calendar and additional time might be spent productively, layering on more time and courses, without first examining how we currently spend time, is likely to lead to more of the same. American children spend more time in school than students in other developed countries. Just adding time is like speaking louder and slower to a non-English speaker in the hopes that somehow that will improve understanding.

How Can We Remedy the Situation?

The cultural, political, and structural obstacles to inculcating a high-quality liberal arts program in American public schools are formidable, but they are not insurmountable. A case in point is the serious colloquy between Deborah Meier and Diane Ravitch on this very subject.¹³ Ravitch favors a national curriculum and Meier is less concerned with content than with developing "habits of mind" for success in a democratic society. These two perspectives are not incompatible. Whatever the common body of knowledge in the disciplines that is shared by educated people (Ravitch's perspective), it must be presented to children in a manner that causes them to ask the following questions: (1) How do we know what's true or not true? How credible is our evidence? (2) Is there an alternate perspective? How might this information look from another viewpoint? (3) Is there a connection between x and y? Is there a pattern? Have we seen this before? (4) What if... supposing that...? Could it have been otherwise if x not y had intervened? (5) Who cares? Does it matter? And to whom does it matter? (Meier's perspective).¹⁴

Regardless of where the curriculum decision is made—at the national, state, or local level—there is bound to be considerable agreement in the core content except at the political and ideological extremes. To overcome the concerns about "who decides"—and to heed the lessons we have learned from the controversy surrounding teaching evolution, MACOS, and the introduction of Hirsch's core curriculum—we need many serious efforts in which teachers take the lead in developing

grade-by-grade curricula sequences in literature, history, science, the arts, and mathematics that reflect the teachers' combined view of what it means to be educated in these fields. Additionally, those curricula must be subject to review by both academics and the local community that wishes to adopt them.

Following are some additional suggestions for overcoming obstacles to creating and implementing strong K–12 curricular materials in our nation's schools.

Get Serious about Teacher Preparation. First, if we are to improve the education and achievement of youngsters, we must improve the education of their teachers. The demands of teaching at every K–12 level require fundamentally well-educated people. It is difficult to overestimate the value of a strong foundation in the liberal arts. Teachers must understand what they want their students to experience and achieve. Their own academic and intellectual backgrounds must include critical and analytic work across the range of core subjects that constitute the liberal arts.

Teacher preparation must expose prospective teachers to excellent curricular materials in the various liberal arts. This preparation must also explain what makes these materials so valuable and how best to use them to help students develop the "habits of mind" identified by Meier. Teachers must understand the relationship between what they are doing in a particular grade and subject and what the long-term education goals are for children. They must understand the content and knowledge children have developed relative to the materials the students are using and recognize that what they are teaching will build the foundation for future learning. This requires a fundamental rethinking of teacher preparation and the role teachers play in ensuring that curricula meet the education needs for all children in a democracy.

Develop Rich, Coherent Humanities Programs. Teachers must be involved not only in delivering the curriculum but also in creating it. These curricular materials must enrich and expand the time currently dedicated to the language arts and social studies. The curriculum must do what standards cannot do. Although in no way endeavoring to be "teacher-proof," the materials must provide teachers with a detailed road map to help students reach the standards and prepare them for what lies ahead. In a standards-based system, a curriculum is the "how-to" guide for teachers. This curriculum helps them convey the "what" of the content standards, and teachers, along with academics and other content specialists, must be intimately involved in its creation.

A curriculum should achieve the following: (1) delineate the learning continuum within and across grade levels; (2) offer suggestions about how to integrate the standards within and across instructional units; (3) describe instructional delivery

strategies for the wide variety of ways in which students learn and the diverse knowledge and skill levels that exist within a classroom; (4) provide instructional materials with a range of complexity; and (5) include examples of fully developed lesson plans. A good curriculum will exhibit *all* of these qualities if it is to serve as the vehicle for accelerating and sustaining high student achievement over time.¹⁵

The curriculum should use multimedia technology, be delivered online, and include teacher-training materials. The materials should include online chatrooms for teachers to share how they used the materials, what worked with students, and the like, so that teachers can engage in "lesson study" around the materials as they improve and refine them.

We do not need a "national curriculum." What we need are many examples of rich, comprehensive, and coherent content that teachers can readily adapt so that students can reach high standards, regardless of whether those standards are set at the state or national level. Indeed, we must find ways to exploit some of the excellent curriculum materials produced by the National Endowment for the Humanities, the NSF, and others. And most important, we must provide the resources and opportunities for teachers to work together to develop curriculum materials.

Enhance the Federal Role. The federal government and nonprofit organizations should support efforts to unite the curricular materials developed by the National Endowment for the Humanities, the National Endowment for the Arts, and other publishers. The express purpose should be to work with teachers and other educators to examine the quality of these curricular materials and to provide funds to have them disseminated. Along with the dissemination effort, funds must be made available for the professional development of teachers so that they can use the materials effectively. As the experience with MACOS and Core Knowledge demonstrates, it will be important to work at the local level to educate the public about the content of the curriculum and why it is important for children to be exposed to such material.

The federal government, states, and philanthropies should provide funds for extracurricular activities devoted to the liberal arts. The ballroom dancing competition for middle-school children, so dramatically presented in the recent documentary *Mad Hot Ballroom*, is an example of one such program. ¹⁶ The children not only gained many skills from that activity, but also experienced the sheer pleasure that comes from music and dance and being able to do something beautiful so well.

Define the State Role. Although some people have suggested that the best way to ensure that attention is given to the humanities in the curriculum is to implement high-stakes assessments,¹⁷ others have suggested that testing has perverted the

process of learning that the humanities represent. What is needed is state-level attention. States should require districts to demonstrate that they have well-developed curricula that will help youngsters meet the specified goals. States should create or monitor the curricular materials that local education agencies use in their efforts to infuse the humanities into the curriculum. And states should provide incentives and consequences for failing to provide such materials to children.

In Sum

To infuse the arts and humanities into the schooling of America's youth will require a strategic plan that addresses better preparation for teachers, particularly in regard to their liberal arts education; enriched curricular offerings for students; and the ability to "sell" the value of the liberal arts. Unfortunately, today's rhetoric has substituted "test scores" for learning and education. Until we convince state and federal governments that children must be encouraged to think independently, and not just give right answers, we will continue to struggle to introduce challenging materials into the school curriculum.

Endnotes

- An AFT report, *Making Standards Matter 2001* (Washington, D.C. AFT, 2001), found that the absence of good curricular materials is not restricted to the humanities. Rigorous, coherent state curricula were lacking in science and math as well as in social studies and English language arts.
- ² See James Gutherie's review of *Science Textbook Controversies and the Politics of Equal Time* by Dorothy Nelkin in *Science News Series* 195, no. 4291 (May 1977): 752–54.
- ³ E.C. Scott, "Not Just in Kansas Anymore," Science (2000): 813–15.
- ⁴ "House Orders Monthly Review for NSF," *Science News* 107, no. 16 (April 19, 1975): ISSN:00368423.
- ⁵ In a history of the MACOS debacle, Peter Dow pointed out the lack of teachers and other school personnel on the development team—people who could have warned the developers away from using sexual practices as an example of cultural differences. See also, Herbert Kleibard's review of Peter Dow's "Schoolhouse Politics: Lessons from the Sputnik Era," in *Science News* vol. 256, no. 5059 (May 1992): 1041–42. Hirsch talks at length about the need to have parents and the community familiar with the material to allay fears and gain acceptance.
- ⁶ D. Ravitch, *The Language Police: How Pressure Groups Restrict What Students Learn* (New York: Alfred A. Knopf, 2003).
- ⁷ J. Featherstone, "Revising America: A Symposium at the National Endowment for the Humanities," *The History Teacher* 13, no. 4 (1980): 566–70.
- ⁸ D. Lacy, "Revising America: A Symposium at the National Endowment for the Humanities," *The History Teacher* vol. 13, no. 4 (1980): 570–74.

- 9 See "College Learning for the New Global Century. A Report from the National Leadership Council for Liberal Education and America's Promise (LEAP)" (Washington, DC: Association of American Colleges and Universities, 2007).
- "NCLB: Narrowing the Curriculum?", Policy Brief 3, Center on Education Policy: Washington, D.C., July 2005.
- Martin West, "Testing, Learning, and Teaching: The Effects of Test-Based Accountability on Student Achievement and Instructional Time in Core Academic Subjects." Paper presented at Thomas B. Fordham Institute conference "Beyond the Basics: Why Reading, Math and Science Aren't Sufficient for a 21st Century Education," Washington, DC, December 12, 2006.
- Aaron Benavot, Instructional Time and Curriculum Emphasis: U.S. State Policies in Comparatve Perspective." Paper presented at Thomas B. Fordham Institute conference "Beyond the Basics: Why Reading, Math and Science Aren't Sufficient for a 21st Century Education," Washington, DC, December 12, 2006.
- ¹³ See their *Education Week* blog, "Bridging the Differences," available at http://blogs.edweek.org/edweek/Bridging-Differences/2007/.
- ¹⁴ Habits of mind as described in Meier posting, *Bridging the Differences*, April 23, 2007.
- 15 AFT, op.cit.
- Several inner-city schools participate in a ballroom dancing contest for fifth- and sixth-grade middle-school students. The program not only teaches them dancing—rumba, meringue, tango, and the like—but also teaches them about how to get along with others, behave in new settings, stick with a problem until it is mastered, and learn about their own skills and preferences.
- ¹⁷ Martin West, op cit.
- Stanley N. Katz, "The Liberal Arts in School and College." *Chronicle of Higher Education* 52, no. 27 (March 10, 2006), B47-B48.

Preparing Teachers to Teach the Liberal Arts

• • •

David Steiner

Dean of the School of Education, Hunter College

If we are to raise our students' achievement levels in the liberal arts, we will need to begin with those responsible for imparting history, language arts, math, science, and the fine arts to them—their school teachers.

For the better part of a century, America's colleges and graduate schools of education have been primarily responsible for preparing people to teach the liberal arts in primary and secondary schools. Yet for all that experience, there is still no consensus as to which practices and courses produce effective classroom practitioners. Daniel C. Humphrey and Marjorie E. Weschsler have stated the problem succinctly:

We currently know very little about how a teacher candidate's educational background, previous classroom experience, course work, clinical practice, mentoring and school placement interact to produce a teacher with the skills and knowledge to meet the academic needs of diverse students. The research will be difficult in and of itself. The real challenge, however, will be applying this research to practice. (Humphrey and Weschsler, 2006)

Despite this depressing reality, we are not totally in the dark as to how institutions of higher education can fashion and strengthen liberal arts teachers. Three areas of teacher preparation, in particular, must improve if we are consistently to develop teachers who are effective in the K-12 classroom. Most obvious is to ensure that those entering the teaching profession are themselves well educated, by which I mean liberally educated, broadly educated, but particularly knowledgeable in the subjects they will eventually teach. Beyond this, we must also improve their understanding of how to teach the subject material they are mastering, i.e., their pedagogical prowess. And we must increase both quantity and quality of time that would-be teachers spend with master instructors, who are the bridges between raw knowledge, theory, and the actual practice of instruction.

Knowing of What You Teach

It may seem obvious that, if one is to teach high-school social studies, for example, one should be well grounded in the fundamentals of U.S. and world history, as well as basic economics and geography. If one aims to teach middle school math, one should have mastered algebra and geometry, if not trigonometry and calculus.

In fact, however, today we have no such consensus. Rather, our profession is split between those who contend that teachers should above all master meta-skills—analysis, decoding, critical thinking, etc.—that students will use to gain knowledge via their own discovery of it, and those who stress that teachers should first and foremost master subject matter, i.e., the knowledge upon which any effective use of meta-skills will rest.

In my view, it isn't so much which one is the correct view, because would-be teachers need both content and pedagogy. The problem rests in who, and how, that information is dispersed. Let's begin with content. Because most schools of education are guided by the belief that meta-skills trump content, liberal arts content is taught principally by the arts and science faculty. Education faculty provide instruction in "methods."

That seemingly logical division of labor isn't working as well as it needs to, in no small part because of a mounting problem on the arts-and-science side of the house: too often, today's subject-matter courses are themselves highly specialized and not necessarily compatible with the type of knowledge that K-12 teachers need most. As the stories of countless university core-curriculum battles make clear, fewer professors want to teach the introductory survey courses (i.e., broad liberal arts courses) that would make the most sense for future teachers to study. ¹ Too many of our current teachers—especially in middle and high school, have neither a sense of the broad span of their chosen academic disciplines nor been taught to model deep analysis and understanding of an idea, a poem, a theory, a painting, or an equation. Absent that understanding, they cannot hope to teach it to their students. For many arts and sciences faculty, their own professional standing and advancement depend on hyper-specialization in obscure content areas, which carries over into the courses that they teach. The flabbiness of "general education" and "distribution" requirements for undergraduate students exacerbates this problem.

Through his network of Core Knowledge Schools, E.D. Hirsch has been willing to codify and make available a sequenced and cumulative narrative that introduces our world to children, to reassert, if you will, the authority of knowledge.

Using such narratives to create a relatively stable, structured, and vertically integrat-

ed national curriculum would offer guidance, clarity, and purpose to teacher preparation in the liberal arts: the course work in the arts and sciences required of teachers could be defined just as it is for pre-meds, and the schools of education could focus on the effective delivery of specified content.

It's hardly novel to point out that other professional schools, such as medicine and engineering, require that their students first and foremost master the knowledge essential to their profession, either before entering the professional preparation program or during the course of it (or both). Every student who desires to attend medical school must complete this coursework. It's worth remembering, however, that not all would-be doctors major in chemistry or biology. Many major in English, history, or some other discipline—so long as they also take the required pre-med courses.

It is time for American schools of education to do the same. We should standardize the core content that teachers—certainly teachers of the primary and middle grades—will need to acquire and structure our teacher preparation programs to ensure that they acquire it, whether from education professors or arts and science professors or elsewhere. (If they acquire it outside of the university setting they should be able to "test out" of these course requirements.)

In the United States, a national, or at least a state-wide adoption of a sequential, content-based curriculum could enable teacher preparation programs to define—and then teach—the content their students would require. But whether we have a national curriculum or not, surely we should be able to get states to agree on a substantial portion of what all their future teachers need to know, and see to it that all students who want to enter the teaching profession master that material. The remaining portion of the requirements could be state-specific or institutionally idiosyncratic.

Translating Content for the K-12 Classroom

Teacher preparation dare not limit itself to content alone. Instructors also need to know how to instruct others. Some people possess plenty of knowledge that they've no idea how to share. Others are good sharers but don't possess enough knowledge themselves.

This problem would be far easier to tackle if we knew more about what makes a good teacher a good teacher. Reviewing the major research in the field, only two lessons can be drawn with confidence. First, all else being equal, abler students become more effective teachers (where "effective" is defined as having a differentially positive impact on student learning compared to other teachers with similar pupils). Summarizing the multiple studies conducted on the sources of teachers' differential

impact on student learning, Grover J. Whitehurst estimates that a teacher's cognitive ability has about twice as much impact on student learning as the next leading factor—focused training—and far more than any other currently measurable teacher attribute.²

Second, we know that high cognitive ability of teachers is not in itself sufficient to ensure effective learning by their pupils. But much of the rest remains mysterious. Formal teacher preparation contributes, to be sure, but not nearly as much as one would wish. Measuring the effectiveness of teacher preparation programs in raising student performance, Jim Wycoff suggests that analysts can verify only about 25 percent of the variables that separate effective and ineffective teachers (and about half of *that* is cognitive ability).³ In other words, three quarters of what makes a teacher effective depends on factors beyond academic credentials.

The field, in short, is wide open to additional research—and better ideas. Deborah Ball, dean of the School of Education at Michigan State University, has one. She has conducted pioneering work in describing the kind of "mathematical knowledge for teaching" required to ensure students' effective mastery of mathematical content. Focusing on such issues as the understanding of errors and the ability to re-cast mathematical concepts to uncover fundamental principles, Ball's work represents a constructive step toward a strong and reliable foundation for mathematics instruction.

For more such advances to occur, liberal arts faculty need to become more involved in training tomorrow's teachers. This means that the fundamental working relationship between colleges of education and the liberal arts colleges must change. Too often, liberal arts courses for teachers at the masters level are better designed for those wanting to pursue graduate studies, not for students who will be teaching primary and secondary pupils. The material taught should dovetail with what student teachers will face when they enter the classroom.

Training teachers to make better use of data when teaching will also improve their ability to deliver content in a way that students can best understand. It is now beyond reasonable dispute, for example, that the frequent employment of formative assessment measures, when combined with the rapid analysis of the results and the use of this data to inform immediate changes in classroom instruction, has a major positive impact on student learning. Preparing future teachers to construct assessments to provide fine-grained information about student performance, to properly interpret that information and then engage in differentiated instruction should now be a fundamental part of all teacher preparation programs (Nancy Protheroe, 2001).

In other instances, teacher-educators can and should take advantage of domain-

specific research. Since the publication of the findings of the National Reading Panel in 2000, schools of education can draw on a strong research base and provide future literacy teachers with systematic training in such critical domains as phonemic awareness, guided reading, and direct and indirect vocabulary instruction with carefully differentiated attention to readers' needs (NICH, 2000). It did not surprise (or disappoint) critics of schools of education to discover that the great majority of these schools have, to date, resisted the whole-scale redesign of their literacy programs to ensure that their student teachers do in fact have this training (Walsh, 2006).

Finally, future teachers should be exposed to the results of international academic assessments—TIMSS and PISA—and conclusions that can reasonably be drawn from analysis of those test results. It is clear, for example, that the American high school student is exposed to too many topics in too short a time with little opportunity to grasp basic principles. Ironically, more time spent on fundamentals translates into curricula that reach higher levels of content knowledge than are often offered in the United States.

At the programmatic level, some innovative designs for teacher preparation hold great promise. In New York City, for example, the Department of Education, the City University of New York, New York University, and the Petrie Foundation are developing an undergraduate program to prepare teachers of high school math and science. Tuition is free, and students spend time in the New York public schools from their freshman year onwards. The most striking feature of the new program that I've seen at Hunter College, however, is that five chairs of departments (Biology, Chemistry, Mathematics, Curriculum & Teaching, and Educational Foundations), together with multiple faculty members and teachers from the public schools have been working closely together to design the course sequences, the course content, and our students' school-based experience.

Alverno College in Milwaukee also enjoys an unusually healthy relationship between the liberal arts faculty and professors in the education department, resulting in more-relevant academic courses for teachers. Arthur Levine, president of Teachers College at Columbia University and a recently outspoken critic of teacher preparation programs, had this to say about the program:

[The] liberal arts faculty, who consider education one of the more rigorous majors at Alverno, are also deeply involved in the teacher education programs. Language arts education, for instance, is coordinated by a senior English department professor.⁵

Unfortunately, there are no comparable models that address the broad spectrum of liberal learning that tomorrow's teachers will need, but the two programs discussed above offer a promising model.

Preparing Teachers for the Classroom

Even if we provide teachers with the content, and give them models for applying it to K-12 students, young college graduates will still falter if they don't receive competent hands-on experience and perceptive feedback on their performance and if they don't have the opportunity to spend significant time on task with master teachers. Currently, student teachers typically spend at least a semester in a K-12 classroom observing and teaching. Observers, usually adjunct professors or instructors in education, visit and provide feedback. Unfortunately, those observers rarely have much structured guidance as to what to look for. Consequently, the standards for what constitutes effective classroom teaching vary wildly across ed schools—and often within them, as well. An experiment we ran at Hunter College reveals as much. Using videotape of a student-teacher's lesson, we asked our field supervisors to assess, then and there, the performance they were observing using the rubrics they commonly employed. As expected, their grading criteria were idiosyncratic, and thus their evaluations of the student teacher in the video ranged from poor to excellent. We subsequently took the opportunity to redesign and standardize rubrics for evaluation, and field supervisors now undergo training with the help of common videotapes in order to hone their observation skills and move toward a shared understanding of judgments and standards. Beyond their use as tools to raise the level of field supervision, these videotapes will primarily be employed for one-on-one instruction with our student teachers, and indexed and made available to our faculty for use in their own methods courses. I believe this approach to strengthened student-teaching holds great promise.

But tomorrow's teachers also need ample exposure to master teachers at work. Here, we again borrow from the medical school model. Appointing master teachers to clinical faculty positions (much as med schools appoint exceptional practitioners to their clinical faculties) would provide students the opportunity to interact from the outset with highly successful teachers. Moreover, the clinical faculty could be beneficial in helping the academic faculty mold liberal arts courses so that they dovetail better with what students will need when they begin teaching.

In short, we know where to begin. But we have a long way to go.

Bibliography

- Ball, Deborah Loewenberg, (February 6, 2003) "Mathematics in the 21st Century: What Mathematical Knowledge is Needed for Teaching Mathematics?" Secretary's Summit on Mathematics, U.S. Department of Education, http://www.ed.gov/rschstat/research/progs/mathscience/ball.html
- Cochran-Smith, Marilyn, and Zeichner, Kenneth M., eds. (2006) *Studying Teacher Education*. American Educational Research Association, Lawrence Erlbaum Associates, Inc.
- Hirsch, E.D., Jr., (2006) The Knowledge Deficit: Closing the Shocking Education Gap for American Children. Houghton Mifflin.
- Hoxby, Caroline and Leigh, Andrew, (2005) "Wage Distortion: Why America's top women college graduates aren't teaching." *Education Next*, no.2, www.hoover.org/publications/ednext/3220721.html.
- Humphrey, Daniel C, and Weschsler, Marjorie E, (August 30, 2006) "Fighting the Wrong Battle in the Teacher Preparation Wars." *Education Week*, Vol. 26, no. 1. http://www.sri.com/policy/cep/pubs/edweekarticle.pdf.
- Labaree, David, (2003) "The Ed. Schools Romance with Progressivism." Brookings papers on Education Policy.
- —The Trouble with Ed Schools. (2004) Yale University Press.
- Levine, Arthur, (2006) "Educating School Teachers." Teachers College, Columbia, http://www.edschools.org/pdf/Educating_Teachers_Report.pdf.
- Lewis, Henry, (2006) Excellence Without a Soul. Public Affairs.
- Pangburn, Jesse May, (1932) *The Evolution of the American Teacher College*. New York: Columbia University, Teachers College, Bureau of Publications.
- Protheroe, Nancy, (Summer 2001) "Improving Teaching and Learning with Data-Based Decisions: Asking the Right Questions and Acting on the Answers." Education Research Service *Spectrum*.
- Schmidt, Wlliam H. and McKnight, Curtis C. (December 4, 1998) "Science Education?: What Can We Really Learn from TIMSS?" *Science*. Vol. 282, no. 5395, pp. 1830—1831.
- Steiner, George, (2003) Lessons of the Masters. Harvard University Press.
- Symposium: "A New Architecture For A New Education." (February 3, 2007) Center for Architecture, New York.
- Teaching Children to Read: An Evidence-Based Assessment of the Scientific Research Literature on Reading and Its Implications for Reading Instruction. (2000).

- National Institute of Child Health and Human Development (NICH). Washington, DC.
- Walsh, K, Glaser, D, and Wilcox, D.D., (2006) "What Education Schools Aren't Teaching About reading and What Elementary Teachers Aren't Learning." NCTQ, http://www.nctq.org/nctq/images/nctq_reading_study_exec_summ.pdf
- Whitehurst, Grover J., (2003) "Research on Teacher Preparation and Professional Development." White House Conference on Preparing Tomorrow's Teachers, http://www.ed.gov/admins/tchrqual/learn/preparingteachersconference/whitehurst.html.
- Wycoff, Jim, and Grossman, Pam, (October 6, 2006.) "Presentation to the Deans of New York City Schools of Education, Hunter College, New York.

Endnotes

- ¹ Lewis, 2006.
- Whitehurst, 2003. Also Hoxby and Leigh. (2005) Hoxby finds that pay compression, by dramatically reducing the number of teaching candidates from highly selective colleges (an admittedly imperfect, but still suggestive proxy for cognitive ability), "accounts for more than three-quarters of the decline in teacher quality."
- ³ Wycoff (2006)
- Schmidt and McKnight. (December 4, 1998) See also: Organization for Economic Cooperation and Development: Learning for Tomorrow's World—First Results from PISA. (2003)
- ⁵ Levine, 82.

Expanding Access to Liberal Education in Public Schools:The Promise and Perils of Charter Schools and In-District Choice

David J. Ferrero

Senior program officer for the Bill and Melinda Gates Foundation and a former high school teacher

Charter schooling and other choice options offer the fastest opportunity for educators and parents who want more public schools to provide a general education for children grounded in the liberal arts tradition. In fact, charter schools and other forms of public school choice offer the best hope for educators or parents in the United States who believe strongly in any robust and coherent education program for young people, whether it is traditional, progressive, multicultural, or otherwise. The reason for this is that Americans have never been able to agree on the best education for all students. Every major effort over the last 120 years to define a core curriculum for American students, from the Harvard Committee of 10 report in 1893 to the effort to define national content standards in core academic subjects in the 1990s, has provoked rancor, resistance, and sabotage. The result? Tepid, incoherent, sometimes watery, sometimes bloated offerings that are characteristic of most public school textbooks and curricula today. For all the advantages I believe a national curriculum would confer by way of system efficiency, transparency, and fairness, I see no reason to believe that any new ambitious effort to define a national core—beyond perhaps mathematics, reading, writing, and Constitutional knowledge—would yield a different result this time around. America is simply too decentralized and too diverse, and most Americans and American educators prefer it that way.

The problem is especially acute for proponents of the traditional liberal arts, however, because they compose a politically weak and I daresay generally maligned minority among educators and reformers. As I observed in my essay on page 25, the liberal arts are virtually everyone's straw man for all that is elitist, irrelevant, unjust, or just plain moldy in education. In a reform world in which everyone aspires to be American public schooling's Luther, Calvin, or Zwingli, the traditional liberal arts are the medieval Catholic Church: backward, overwrought, corrupt, and oppressive. To the extent that an effort to set a national curriculum might succeed, it would likely be at the *expense* of the traditional liberal arts—or "traditional humanism" as I defined it

on page 25-26. If traditional liberal educators want a fair shot at demonstrating their relevance and value to young people and society, their best opportunity lies in promoting a policy environment that supports pedagogical diversity among skillful, well-intentioned educators. They then need to take advantage of that climate to create new public schools, whether district or chartered, that teachers and parents can opt into.

I recognize that this position puts me at odds with most other contributors to this volume, as well as its publisher. To some degree, the divergence stems from the relative importance we attach to a national curriculum versus preservation of a certain form of liberal and pre-liberal "general" education as I describe earlier in this volume. I don't believe it's possible to achieve both, and I'm not willing to sacrifice the latter for the sake of the former. But as I've already noted, I don't think the former is possible either, at least not in the robust, content-focused way my colleagues are advocating, for reasons ranging from the professional and cultural politics of the education intelligentsia to the fierce localism of the hoi polloi. I take as emblematic here the experience of E.D. Hirsch, Jr., one of the nation's most steadfast proponents of a national core curriculum, whose Core Knowledge sequence has been adopted mostly by homeschoolers, maverick public school principals, and charter schools. It's worth asking: What would Core Knowledge be reduced to if entered into the sausage grinder of an American-style national curriculum-setting process? And where would it be today without charter schools and homeschoolers, and the flexibility they have under current laws in many places to adopt the Core Knowledge sequence?

The charter and choice route is not without its perils, however. This movement to reinvigorate public education has suffered from its own hubris, as well as from the failure of proponents and opponents alike to grasp and exploit the unique aptness of schools of choice for accommodating the peculiarities of American educational politics. The market ideology that undergirds most charter and choice advocacy, and the specter of privatization that it gleefully invokes, roil educators and those concerned for the health of public institutions and the common ends they are designed to serve. It thereby galvanizes opposition to a reform that, more aptly theorized, might have won vigorous adherents among educators and those concerned for the revival of civic culture. The schools themselves have a spotty track record of performance. Depending on the methodology (or ideology) employed by individual analysts, charters are either a little better or a little worse than comparable conventional public schools—unimpressive no matter whose research one finds more congenial to one's predispositions. Public policy hasn't helped. States have yet to develop

workable policy and governance arrangements, manage the disruptions that charter schools create for existing systems and constituencies, regulate the schools sensibly, or fund them adequately. Once touted as a panacea, charter schools have proved to be no less susceptible to the ills of public education than the conventional district-run schools they were supposed to rival.

I nonetheless continue to believe that charter schools and other forms of public school choice present the most viable option available for improving public education in general and for reinvigorating liberal arts education, specifically. In my earlier chapter, I named some unconventional programs—such as Civitas Schools in Chicago and the Clemente Course in the Humanities—that embody the best of the liberal arts tradition, often with students from impoverished urban backgrounds. And I could name others, including Bard Early College in New York City and Withrow University Prep in Cincinnati, Ohio, which are *district*-managed schools of choice. Such examples demonstrate what's possible when passionate, like-minded educators are buffered from the cultural politics of education and allowed to create a school with a clear philosophy, coherent curriculum, and shared understanding of good pedagogy. Such scattered existence proofs give me hope that the failure of imagination that has thus far impeded the development of successful *systems* of publicly supported choice can be overcome through the missionary efforts of entrepreneurial educators and enlightened policymakers.

A charter and school choice strategy offers at least three advantages for liberal arts education proponents. First, it allows them to sidestep intractable conflicts over the most suitable form of schooling for *all* children, citizens, or American industries. They need not engage in endless state and federal policy debates over what knowledge is of the greatest worth. They need only secure their charter and demonstrate that enough families want a traditional liberal arts education for their children to justify opening schools. Then, through successful recruitment and standards-referenced performance over time, they need only demonstrate that they are *good* schools for the families and communities they serve, rather than the ultimate form of education for everyone.

Second, schools of choice offer the benefits of voluntary association that independent schools have always enjoyed. A big part of what makes reform of conventional public schools such a prodigious undertaking is that diverse family, community, and professional constituencies have to be persuaded to adopt a certain vision of reform. This has proved virtually impossible to achieve and sustain nearly everywhere it's been tried. Any robust reform vision is eventually sabotaged outright or

emasculated through compromise and half-hearted implementation by resistant teachers, community activists, or rival reformers. In contrast, a new school of choice offers the luxury of hiring teachers and recruiting families who subscribe to the curricular and pedagogical vision of a particular school. They are thus the fastest route available to those who want to see traditional liberal arts education made available to more families more quickly.

Third, as more such schools are created, the opportunities to form new professional networks and associations increase. The benefits of such associations are well known: a professional identity, "brand" identity, economies of scale in the production or procurement of materials, refinement of practices, political influence, and enhanced recruiting power. One can also imagine the creation of new, more appropriate forms of professional training, certification, and induction as the charter movement more generally begins to work out new institutional arrangements better suited to different models' distinctive needs. For educators in the liberal arts tradition, such opportunities would also pose a challenge. These educators have displayed less vigor in recent decades than champions of rival education models in developing and promoting their vision and in taking advantage of existing opportunities to create programs, start schools, and otherwise demonstrate their vitality.

The foregoing advantages presume a policy environment that is friendly to the creation and sustenance of such schools. It also presumes an environment friendly to legitimate rivals to the traditional liberal arts, because those rivals will strive sedulously to sabotage any regime that threatens them. Chief among the critical policy questions then is how to calibrate the standards, accountability, and assessment regime so that it is neither so tight that it defines legitimate schooling options out of existence nor so loose that it opens the door to new forms of social stratification or outright malpractice.

Fortunately, for all the discord that has marked American public education over the last century and a half, a serviceably robust consensus exists among sensible policy makers, professionals, and other constituencies about what public schools ought to do: (1) teach literacy, "numeracy," and other basic skills; (2) cultivate sound reasoning and thinking skills; (3) foster mental and physical health; (4) promote cooperative behaviors and good citizenship; and (5) prepare students for further education in pursuit of a productive and prosperous life for themselves and their families while contributing to a competitive national economy. Where educators and others disagree is in how best to organize an education program to support those

common aims. I explored some of these divergences within consensus at greater length on pages 26-31. Here, I want to unpack the "tight-loose" accountability framework I mentioned briefly in that chapter as a way to think about how to calibrate the autonomy-in-return-for-accountability bargain at the heart of charter schooling. By adopting this framework, a variety of good schools may be allowed to flourish while ensuring that they all contribute to those broadly shared aims.

The basic idea behind "tight-loose" accountability is to tightly prescribe those core skills that are most easily defined and measured while also requiring, but more flexibly, those skills, knowledges, and dispositions that are more difficult to define uncontroversially or measure directly. Here, we could do worse than to start with the No Child Left Behind (NCLB) Act's focus on reading and math as measured through standardized tests. No one denies the importance of these skills, and while ideologues exist who will brook no compromise with standardized testing of any kind, most discerning critics of NCLB and standardized tests object less to the tests than to the sole reliance on those tests as a means of judging schools, teachers, and students. This is where the "loose" elements come into play. Beyond math and reading—and perhaps writing, Constitutional knowledge, and basic science—the things we want students to know and be able to do become either more contentious to specify (e.g., U.S. history) or more difficult to assess directly, validly, or reliably (e.g., "good citizenship"). We don't, however, want schools to give short shrift to these important subjects. And so we mandate, but mandate loosely. Federal or state governments can mandate that all schools will address citizenship and workforce competence, cultivate higher-order thinking, teach history and culture, and so on. But those things can be left deliberately broad in definition. Fleshing out that definition would be the responsibility of the local education agency, charter management organization, reform advocacy group, or other curriculum developer, subject to approval by an oversight body authorized by the state. The applicant would propose a curriculum, explain its underlying rationale and how it conforms to the state framework, and outline how it would assess students' progress toward articulated goals and objectives. Assessment formats could vary—papers, portfolios, problem-based assignments, or paper-and-pencil tests—but guidelines could be developed to ensure that some measure of rigor be upheld. To mitigate the risk of laxity in implementation or outright chicanery, the state authority or designee could annually review samples of locally developed assessments as well as perform random on-site inspections.

Take citizenship education as an example. National or state standards might

stipulate that citizenship education at the K–12 level must include knowledge of American government and the principles undergirding it, facility with rhetoric and argument, and a disposition toward informed participation. A standardized test could be developed for the knowledge requirement and defined rather extensively. For the rest, however, a local developer or provider might propose any number of curricula and assessments. Some schools might certify that a certain number of community service hours be completed and documented. Others might require students to compose an extended analytical essay comparing, contrasting, and evaluating ancient and modern theories of justice. Yet others might require a problembased community action project or prepared participation in a public debate. The state could tighten up the requirement with both a written analytic form of assessment and some demonstration of engagement. Either way this system would permit a diversity of means to fulfill common core requirements.

Similar frameworks and procedures would govern core academic domains such as history, social sciences, arts, and humanities, for which most observers believe that students should have some measure of exposure but can't agree on what, why, or how much—let alone how to assess learning, appraise performance, and gauge success. It's areas like these for which I think charters and choice are most promising. Many individuals and organizations have invested tremendous energy in developing a wide variety of curricular philosophies, rationales, model curricula, textbooks, syllabi, and other materials. Most are reasonable and defensible, and many are excellent and exciting, reflecting the proliferation of approaches in their respective fields, especially in the humanities and social sciences. All an accountability system need do is mandate that a provider adopt, adapt, or create a curriculum based on some defensible rationale within the guidelines proposed above.

Those who pay attention to the various disputes that rage among educators and reformers over curriculum, instruction, and assessment may recognize some cross-breeding in this proposal. The framework mandates a parsimonious battery of standardized national or state tests while sanctioning and incorporating various forms of alternative assessments for which those wary of standardized tests lobby. It likewise integrates state- and test-based accountability with the "professional" accountability models preferred by educators, where accountability is really a form of responsibility and reciprocity within a tight-knit community of practice. It also mediates between the modern impulse to nationalize and standardize curriculum and instruction in the name of national unity, equal opportunity, or international competitiveness, and the

values of diversity, entrepreneurship, and local control that Americans continue to hold sacred. Finally, and most important for the proponent of traditional liberal learning, it enforces the provision of a broad-gauge curriculum in arts, sciences, and humanities without either privileging a single model and inviting rancor, or forcing lowest-common-denominator compromises that result in a thin curricular gruel.

Note, too, that this model is *regulated* and governed by *standards*. It is not relativistic or laissez-faire. It allows for a variety of approaches to teaching "democratic citizenship," but mandates that some recognizable conception of democratic citizenship will be taught. No such system need tolerate Ku Klux Klan schools or *madrasas*. It might remain agnostic on bilingual versus immersion models for English language learners, but would require that they demonstrate proficiency in English. It might accommodate a range of approaches to teaching the biological sciences, from those that are discipline-based to those that are project-based, but could exclude "Intelligent Design." As these examples suggest, arguments about where to draw the line between legitimate and illegitimate practice will not magically disappear. But while authorities wrangle with fringe groups over where to draw those boundaries, a whole range of legitimate and exciting schools could be buffered and nurtured.

Many other difficult design challenges are involved in fleshing this out into a viable system. One challenge that I've sidestepped is how to weigh different state versus local assessments for purposes of school and student accountability. If a school or student does poorly on state-tested reading, math, and Constitutional knowledge, but has verified success in other locally assessed areas, does that school or student "pass"? Would the system be designed to permit the creation of vocational education schools or career academies with no pretense to college preparation? Even thornier, would schools whose proposed curricular models seem designed to appeal to single gender or ethnic groups—for example, a school with an explicitly Afrocentrist curriculum—be permitted? Is there a robust federal role in this system—that is, should it be incorporated into a reauthorized NCLB? How broadly can standards for history or critical thinking be drawn before they become meaningless? Conversely, how tightly can they be drawn before they covertly exclude legitimate alternatives? And just as difficult, who will draw them and how will the processes be designed to avoid the debacles that characterized standards-setting efforts of the early 1990s? These and other similarly contentious questions need to be addressed and somehow resolved more satisfactorily than they have been thus far.²

The liberal arts entrepreneur needn't wait for the perfect policy regimen to be

constructed, however, to start taking advantage of the opportunities already afforded by existing charter laws and innovative school district policies. In fact, they can take advantage of the current thinness and incoherence of most state standards to create more existence proofs like those I've named. Withrow University Prep was developed at a time when Ohio's standards and assessments were among the weakest in the country. In Illinois, where Civitas Charter Schools operate, subject-matter exams are weak and ill-defined. Civitas anchors its curriculum to the American College Test, the skills-based college admissions test that the state now requires of all its eleventh graders. It may in fact benefit from the content weakness of the state's standards because any more robust set would likely hamstring what I've termed elsewhere as the "innovative traditionalism" of its curriculum. My point is this: The people who created and staff those schools don't need to be goaded by the threat of accountability sanctions. They espouse a vision of liberal education and a comprehensive set of aspirations for their students that include both intellect and character that are dependent on, but not limited by, those skills defined and tested by their respective states.

Therein lies both the strength and limitations of the charter school and choice route under current circumstances as means to advance liberal learning and the education of the young people it benefits. The very weakness of most states' standards and accountability systems has allowed these educators to avoid intractable debates about the best curriculum for all students and completely sidestep the gridlock that paralyzes traditional school districts. Instead, these educators simply start schools from scratch based on a coherent vision of liberal education implemented by hand-picked teachers who recruit parents who themselves believe in this kind of education for their children. Charter schools and public school choice systems have therefore proven to be a relatively quick way to enroll more students in such schools. Yet entrepreneurial opportunism by itself is not a *system* solution. The students enrolled in such schools number in the mere tens of thousands nationally. Too many of the rest remain consigned to dysfunctional systems that find it difficult to educate students to the relatively low standards that have been set for them. And so we need a set of system reforms that embraces and integrates the full range of proposals set forth in this book, perhaps including national standards and examinations—provided such standards don't overreach and provoke self-defeating backlash. In the meantime, those of us who believe in and understand the power of a strong liberal education need to take advantage of every opportunity that currently exists to reach as many children and communities as we can.

Endnotes

- I have explored elsewhere this phenomenon of divergence within consensus, discussed the mischief it causes, and proposed ways of coping with it. See, for example, "Does 'Research-Based' Mean 'Value Neutral'?" *Phi Delta Kappan* 86, no. 6 (February 2005): 424-32; "Pathways to Reform: Start with Values," *Educational Leadership* 62, no. 5 (February 2005): 8-14; and "Embracing Pedagogical Pluralism: An Educator's Case for (at Least Public) School Choice," *Education Policy Analysis Archives* 11, no. 30 (August 25, 2003): http://epaa.asu.edu/epaa/v11n30/.
- ² For reasons of focus, I have bracketed out a number of other critical design issues on the choice side pertaining to fair access, civic impacts, racial segregation, and consequences of choice for existing school systems. For a fuller exploration of these and other design issues see "School Choice: Doing It the Right Way Makes a Difference," a report from the Brookings National Working Commission on Choice in K–12 Education, 2003.
- ³ For more on Civitas Schools' innovations in classical curriculum see David J. Ferrero, "Having it All," *Educational Leadership* 63, no. 8 (May 2006): 8-14.

Virtual Education and the Liberal Arts

• • •

John Holdren and Bror Saxberg

Holdren is Senior Vice President of Content and Curriculum, and Saxberg is Chief Learning Officer for K12 Inc.

To begin, consider the following two scenarios:

Scenario One: Bekah, a high school junior, plays midfield on the varsity soccer team. The team practices daily, two hours after school—which means that Bekah has to miss drama, because rehearsals conflict with soccer practice. But she loves anything to do with theater, so she's taking a course in "The American Musical from Cohan to Sondheim." She can hardly wait to get home and log on—the course is virtual, but her school allows credit for it. Tonight's lesson consists of some online reading about the revolutionary influence of Show Boat, and watching excerpts of the 1951 movie musical on digital video (although Bekah will watch it all—again—for the fourth time), then posting to an online discussion board where other students respond to teacher-assigned prompts about the show's themes, and occasionally digress on whether Howard Keel is "wonderful!" (as Bekah insists) or "corny" (as Brian complains).

Scenario Two: Ms. Wilson is a fourth-grade public school teacher. Fourthgrade social studies covers state history, but the material in the textbook is neither gripping nor challenging. Before the school year is even half over, she has pretty much covered of all of the subject matter and then some. So she's teaching her kids some real history—a six-week unit on the Middle Ages and the Renaissance in Europe. (Next six weeks she'll take them to Feudal Japan and Medieval Africa.) Ms. Wilson, like most teachers, has little time to prepare specialized materials. But her school has subscribed to an online service that offers comprehensive world history lessons geared to the elementary grades. She downloads and prints her teacher guide and some blackline masters of student activity sheets. In class, she connects her laptop to a projector. She logs on and pulls up the lesson on Gutenberg and the invention of the printing press. The text reads like a good story, keeping the students' interest. Even better, with a single click she can activate animations that show the students how Gutenberg used movable type to print pages—if a picture is worth a thousand words, then moving pictures can be invaluable, especially when available at the click of a mouse.

These scenarios—both based on current fact, not an imagined future—depict two uses of virtual education to enhance liberal arts instruction. Two examples do not seal a case. But they open a window.

What Is Virtual Education?

We'll take for granted the case for the liberal arts in education—that argument has, we hope, been persuasively made by our colleagues throughout this volume. Here, we'll focus on the role of virtual education in enhancing instruction in the liberal arts.

First, what is virtual education? The answer embraces a range of options, evolving even as we write. The common element is the use of technology, particularly the Internet and computers. Technology performs a range of tasks, from delivering content and instruction, to providing tools to track and organize progress through lessons, to giving access to communities of fellow teachers and learners. Many current "virtual schools"—for example, the Florida Virtual School (http://www.flvs.net/), which as of 2007 serves more than 30,000 students; the veteran Virtual High School (http://www.govhs.org/); or virtual charter schools, such as California Virtual Academy (http://www.caliva.org/) or the Agora Cyber Charter School in Pennsylvania (http://www.agora.org/)—are, in effect, the high-tech equivalent of correspondence courses, delivering classroom education without the classroom. Students in these virtual schools work in various locations—at home, in libraries, at tutoring centers—and interact with teachers by e-mail, online messaging services, interactive Web-based classes, fax, telephone, face to face at school-sponsored events, and occasionally even through a quaint system called the U.S. Postal Service.

Most virtual education, primarily delivered now at the high school level, occurs in traditional school settings—for example, students might meet during a regular class period during which they log on to the Internet and take an online course, taught by a distant teacher, with a local teacher in the building acting as monitor and providing "tech support" as needed. In other cases, such as the second scenario above, virtual education is a component of instruction within a traditional brick-and-mortar classroom setting—the classroom teacher uses the online content as a resource. A growing number of K–12 students are choosing to pursue their education though full-time public virtual schools, a good fit for many who seek a customized learning program outside the traditional classroom setting.

What Needs Are Met by Virtual Education?

Our educational utopia is *not* the replacement of high-quality instruction in brickand-mortar classrooms with students staring at three-dimensional simulators hardwired to their visual cortexes. Virtual education exists to fill specific needs, not to displace or replace the traditional classroom.

Meeting Individual Needs Outside the Classroom. Virtual education provides flexible solutions that can meet the needs of various students. These include students in highly mobile families, such as some military families; students who are distracted in a classroom setting; students who seek more challenging material or an accelerated pace; students who need to slow down the pace to achieve mastery; and students who have trouble "fitting in" at school.

The flexible scheduling offered by most virtual education programs especially benefits students who need more flexible hours and locations. These include, for example, students with complex commitments in athletic or dramatic programs, or home-bound or hospital-bound students.

Access to More Content. With regard to the liberal arts, virtual education can increase access to courses not provided by the local school. Many U.S. high schools, mostly in rural areas, do not offer Advanced Placement (AP) courses. If no regular classroom teacher is available, then virtual classes can help prepare students for AP exams in art history, European history, French literature, German language, human geography, Italian language and culture, Latin literature, psychology, Spanish literature, and Japanese language and culture—to name just some of the College Board's AP subjects in the liberal arts.

Of course, virtual classes in these and other subjects can be offered at many levels, not just for AP. Virtual education providers already offer a wide range of complete courses, including virtual teacher contact, for courses that don't have local support or that need to maximize scheduling flexibility. In the liberal arts, such courses include, for example, world history and art programs for elementary schools, or high school courses in the history of photography, Caribbean art history, film and literature, and eastern and western thought, to name just a few.

How Can Virtual Education Enhance Liberal Arts Instruction?

Although virtual education can provide the flexibility to meet individual needs and increase access to a wide range of courses outside the regular classroom, it can also enhance and strengthen liberal arts instruction inside the regular classroom. With the success of e-Rate and other financing mechanisms to bring Internet access and

technology into schools, virtual education can help ensure that all children have access to a rich, varied, and high-quality liberal arts curriculum, regardless of school size or location. And many students, even in impoverished circumstances, now have access to computers and the Internet outside of school.

Meeting the Teacher's Needs. Standardized testing drives teachers in many schools to focus on reading and math. Many of these teachers would welcome a broadening of the curriculum to include more history and the arts. But teachers may not be familiar enough with the liberal arts disciplines to know the key concepts of the subjects. During a typically busy week—especially with a focus on math, reading, and science—they probably have little time to do research and prepare to teach subjects outside their range of expertise.

A practicing teacher needs to know what works and what the most effective approaches are. She needs to have reliable, accurate, and developmentally appropriate materials. Responsibly developed virtual courses (see below) can fulfill these needs by providing on-demand background materials, ready-made lessons and activities, and online communities for teachers whose own training might have been focused more on pedagogical methods than on the liberal arts. Even if only the teacher has online access, she can tap into high-quality, engaging approaches that she may not have the time or background knowledge to develop.

Virtual education providers are already offering or developing the following resources of potential use to classroom teachers who seek to strengthen instruction in the liberal arts:

- Full courses and units for classroom use by teachers, designed to create a flow of
 activities and understanding that optimizes engagement and mastery, with minimal extra preparation time on the teacher's part.
- Libraries of specific activities and Web-based media keyed to major learning objectives across different grade levels, as well as specific content topics, available "a la carte" online.
- Online materials to complement and extend classroom activities, designed to be
 accessed from various locations—for example, the library, computer lab, home,
 or gym—with tools that allow teachers and students to find topics and materials
 specifically relevant to current class studies.
- Online discussion sessions with experts in specific liberal arts disciplines, using a
 multiple-chatroom format monitored by teachers to control the flow of questions and respond to needs for information.

- Web-based galleries and literary journals, including monitored commentary by visitors, for different levels and subjects.
- Virtual classroom simulations to be used as training vehicles for weaving liberal arts topics into other studies and to demonstrate effective techniques to increase student interest.
- Online editorial feedback on student essays in progress, provided through centralized, trained graders with systematic controls on quality and marking standards based on a rubric of specific objectives for each assignment.

Media. As bandwidth steadily increases, virtual education can readily deliver media tools that give teachers new ways to engage students in liberal arts content.

A streaming video feed can take students to pyramids in the deserts of Egypt, or inside the halls of the Louvre, or to the steps of the Lincoln Memorial to hear the Reverend Martin Luther King, Jr. deliver his stirring "I have a dream" speech. An online interactive map projected onto a classroom whiteboard can help students understand shifting borders in Europe at the end of World War I. An animation can show how Gutenberg's printing press worked or can help students see patterns of design in Van Gogh's "Starry Night." Online audio can deliver music, poetry, dramatic readings, or editorial commentaries. Online bulletin boards bridge vast gaps of distance and time and allow students to communicate and interact: they can discuss *The Scarlet Letter* or *The Lord of the Rings*, share ideas for producing a play, or collaboratively compose a piece of music.

With sufficient technology—high-speed connections and Webcams at a minimum—classrooms can be connected across schools. Imagine, for example, Mr. Mason's sophomore English class in Pocatello, Idaho, connecting to Ms. Johnson's corresponding classroom in the South Bronx, as students in both classes watch students thousands of miles away perform scenes from *Macbeth*, followed by a virtual discussion of their interpretations of the play.

Virtual Professional Development. Media can enhance virtual education, but as Clark and Mayer point out in *E-Learning and the Science of Instruction*, "What we have learned from all the media comparison research is that it's not the medium, but rather the instructional methods that cause learning." For this reason, it's important to apply the power of virtual education to communicate the best instructional methods to teachers by developing virtual professional development in the liberal arts.

Although there are benefits to signing up for an online course in art history or romantic poetry, virtual professional development in the liberal arts for teachers should, ideally, go further. It should provide not only a growing stock of compelling,

engaging content for teachers to enrich their own understanding (and lives), but also training in effective approaches and key concepts in the discipline.

Online professional development can use video and audio to convey inspiring examples of effective liberal arts instruction in a variety of settings. Imagine, for example, clips of "Shakespeare in the inner city" or "Gilbert and Sullivan take on Topeka." Over time, technological resources can promote online distribution of shared materials and experiences, and as a result give shape and consistency to the work of a growing network of teachers and schools dedicated to implementing creative approaches to effective liberal arts instruction in the classroom.

How Can We Ensure Quality of Content?

As we have learned in our own work in building online courses and content, it is imperative to make sufficient investment to ensure high-quality of content. Some early attempts at virtual education amounted to little more than an individual teacher posting his regular classroom syllabus online, with students doing the reading and occasionally sending papers to the teacher. The quality of such courses varied depending on the teacher's expertise, and those early courses didn't take advantage of the online tools and resources that have rapidly developed in the past few years.

Our experience building content suggests a number of steps must be in place to ensure course quality (whether in the liberal arts or other content areas):

- Careful development of scope-and-sequence documents for each course, based on analyses of state standards, reports of national curricular commissions, and relevant international frameworks.
- Articulation of learning objectives as specific knowledge and skills, the mastery
 of which can be demonstrated or observed in specific ways.
- Academic review of course content to ensure accuracy.
- Expert instructional design to make effective use of media and online tools (including tools for adaptive learning responsive to individual student needs) and to harmonize online and offline learning experiences.
- Careful research in instructional methods, with special care to sift the trendy, subjective fad *du jour* from the solid, peer-reviewed cognitive science.
- Training and support for teachers delivering online instruction to help them succeed in the online environment—which is not the same as the regular classroom.
- Tools to allow a teacher in a classroom to customize content to meet specific local or individual needs.

• Virtual education, if done responsibly, involves a lot more than a teacher posting his or her syllabus online and waiting for student e-mails.

Public Policy Considerations

Public policy can promote virtual education in general, not only in the liberal arts. We will consider how the federal government, the states, local districts, and philanthropies can help.

The Federal Role. We hear many reports about how ill-prepared students are as voters and citizens, especially in their knowledge of history, geography, economics, and the arts.² The federal government can fund or publicize research to examine how and whether a liberal arts education practically assists the overall mission of creating good citizens.

Because most policies affecting public education are created and implemented at the state and local level, the federal government can help by enacting policies that encourage—or at least do not discourage—states and local districts to implement innovative, high-quality virtual education programs. This effort is partially underway, although more needs to be done. The most recent National Technology Plan, released by the U.S. Department of Education in January 2005,³ calls for the support of e-learning and virtual schools as one of the seven major action steps for states and school districts. The report's recommendations for states, districts, and schools include the following:

- Provide every student with access to e-learning.
- Enable every teacher to participate in e-learning training.
- Encourage the use of e-learning options to meet No Child Left Behind (NCLB) requirements for highly qualified teachers, supplemental services, and parental choice.
- Explore creative ways to fund e-learning opportunities.
- Develop quality measures and accreditation standards for e-learning that mirror those required for course credit.

In 2004, the U.S. Department of Education issued non-regulatory guidance on the public school choice provisions of the NCLB Act.⁴ The Department concluded that virtual schools are a viable alternative for students who are eligible for public school choice opportunities. The Department encouraged school districts seeking education alternatives to consider developing distance learning programs or enter into cooperative agreements with existing virtual schools.⁵

The federal government can continue to play an important role by encouraging states and local governments to increase virtual learning opportunities for K–12 students, and by taking practical steps to champion innovative, high-quality academic outcomes and greater access to virtual education options for all students.

The Role of the States. States should first recognize the growing need and demand for virtual education options among the K–12 student population. U.S. Department of Education statistics report that in 2002–03, there were 328,000 distance education enrollments in K–12 public schools. A report by the Peak Group estimates 500,000 students were enrolled in public online school programs in 2005 and projects enrollments up to 1 million in 2006.

To meet this growing need, states should adopt policies that allow school districts and charter schools to offer online education to students. Policies should enable, and provide equitable funding for, a variety of high-quality public virtual education options, including online course programs that supplement traditional schools, "hybrid schools" in which students receive a mixture of virtual and classroom instruction, and full-time public virtual schools.

States should revise old regulations that do not adequately address the newer world of online learning. Such outdated regulations often frustrate innovation and freeze the state's education system in obsolete practices, such as outdated attendance policies that require "seat time" in a classroom instead of mastery-based learning documented through the frequent assessments built into quality asynchronous Webbased instructional programs.

States need to recognize the realistic costs involved in operating high-quality public virtual services. Just as states don't expect merely to pay printing costs for textbooks, states can't expect to get high-quality, full-time, full-service virtual schools just for the costs of transmitting megabytes. Although public virtual schools do not incur the same costs as traditional schools, there are many common costs (teachers, administrators, books, and supplies). There are also upfront costs unique to virtual education, including computers, technology capabilities, and significant development costs for technology-based curriculum.⁷

Local and Philanthropic Roles. According to the National Technology Plan, local districts need to be willing to undertake a mix of carefully monitored experiments in virtual education, not only in the liberal arts but also across the spectrum—including education at home, in computer lab settings, in the classroom, and in other locations. Local districts should develop efficient ways for families and

teachers to change from one educational environment to another, without being bound by red tape.

Philanthropies can help fund innovative programs. They can provide support to private sector innovators by underwriting initial capital costs and evaluation studies. They can help schools set up virtual programs. Corporate philanthropic organizations founded to help public schools should provide grants that will help enable schools to "go virtual."

What Are the Major Obstacles?

Certain obstacles must be overcome for virtual education in the liberal arts to thrive and spread. These obstacles are technological, political, and cultural.

Technological Obstacles. Day by day, more and more schools are acquiring the latest generation of high-powered computers and getting access to high-speed Internet service. But there's still a long way to go.

It's not just a matter of "going broadband," although many schools do face bandwidth issues, nor is it a simple issue of replacing technology over time. Basic infrastructure can be a problem. For example, we recently worked with an inner-city school that received federal funding to purchase computers, projectors, "Smartboards" (interactive whiteboards), and high-speed Internet access. But the building's old electrical wiring could not bear the load—plug it all in, and watch the fuses blow.

Political Obstacles. In one of the oddest examples of "strange bedfellows" in recent memory, teachers unions and organizations representing private homeschoolers have both opposed the growth of virtual education.⁸

Some homeschool organizations have argued that the government will use public virtual schools to take away the right of parents to homeschool their children. But parents have the freedom to choose private homeschooling or public virtual schools, and the existence of public virtual school options has only strengthened the support for choice in education.

Teachers unions have filed a number of lawsuits in different states attempting to shut down public virtual schools. So far, these suits have failed. The courts continue to recognize virtual education as a valid and valuable option for many students.

Cultural Obstacles. Innovation in schools is celebrated more than implemented. Many senior teachers either resist or are befuddled by new technologies. Their students are often more adept in everything from logging on to coding HTML (hypertext markup language). Such teachers need low-pressure training to make

them both comfortable with and competent in the use of tools that their students would eagerly use, given the opportunity.

The testing mandates in NCLB focus on reading, math, and science. As the old saying goes, "What gets tested gets taught." So the liberal arts get put on the back burner. "We don't have time," especially in elementary schools, where teachers typically must "teach it all" rather than specialize in a subject matter. After all, they say, "We have to keep up the test scores."

True. But reading scores—especially after fourth grade, when reading skills go beyond mechanical decoding to include more comprehension and interpretation—depend in part on the student having a broad range of assumed background knowledge. Reading comprehension passages on standardized tests often assume background knowledge in the liberal arts. For example, when a test confronts a student with a passage comparing two generals, Grant and Lee, and then poses questions to check the student's comprehension, the student who brings to the test a store of background knowledge about the Civil War is better prepared to answer those questions than the student who is reading about Grant and Lee for the first time.

A Powerful Combination

In *How People Learn*, John Bransford observes that "technology can help to create an active environment in which students not only solve problems, but also find their own problems." We think the technology of virtual education, in its various manifestations, combined with the rich content of the liberal arts, will give students, families, educators, and administrators compelling ways to define and solve problems, and thus help educate "productive citizens for a free society." ¹¹

Endnotes

- Ruth Clark and Richard E. Mayer, e-Learning and the Science of Instruction: Proven Guidelines for Consumers and Designers of Multimedia Learning (San Francisco: Pfeiffer, 2002).
- See, for example, Diane Ravitch and Chester E. Finn, Jr., What Do Our Seventeen-Year-Olds Know? A Report on the First National Assessment of History and Literature (New York: Harper and Row, 1987).
- Available at http://www.ed.gov/about/offices/list/os/technology/plan/2004/site/docs_and_pdf/National_Education_Technology_Plan_2004.pdf (accessed 12-1-06).
- ⁴ Available at http://www.ed.gov/policy/elsec/guid/schoolchoiceguid.pdf (accessed 12-1-06).
- The U.S. Department of Education's conclusion was reinforced in a 2004 report on the relationship between virtual schools and NCLB. The authors conclude the following: "Virtual schools

are an acceptable, legal option for districts and states seeking to increase their capacity to meet the choice requirements of the No Child Left Behind Act. Research demonstrates that they can offer high-quality instruction to K-12 learners regardless of location, family income, background, or learning differences." Hassel, Bryan C.; Terrell, Michelle Godard, "How Can Virtual Schools Be a Vibrant Part of Meeting the Choice Provisions of the No Child Left Behind Act?", 2004, in U.S. Department of Education Secretary's No Child Left Behind Leadership Summit, "Increasing Options Through e-Learning."

- ⁶ Cited in "NACOL Fast Facts," available at http://www.nacol.org/media/nacol_fast_facts.pdf (accessed 12-1-06).
- ⁷ A 2006 report prepared for the Bell South Foundation by Augenblich, Palaich, & Associates, titled, "Costs and Funding of Virtual Schools," notes that "operating costs of an online program are about the same as costs of operating brick-and-mortar schools." Available at http://nacol.org/docs/Costs&Funding.pdf.
- See Josh Dunn and Martha Derthick, "Virtual Legality: Unions and Home Schoolers Attack Internet Education," *Education Next* no. 4 (2006), available at http://www.hoover.org/publications/ednext/3854252.html.
- ⁹ For an explanation of the research linking broad background knowledge to advanced literacy, see E. D. Hirsch, Jr. *The Knowledge Deficit: Closing the Shocking Education Gap for American Children* (Boston: Houghton Mifflin, 2006).
- National Research Council (U.S.) Committee on Learning Research and Educational Practice, eds. John Bransford, Ann L. Brown, and Rodney R. Cocking, How People Learn: Brain, Mind, Experience, and School: Expanded Edition (Washington D.C.: National Academies Press, 2000).
- Dana Gioia, chair, National Endowment for the Arts, from a presentation made at the "Beyond the Basics" conference sponsored by the Thomas B. Fordham Foundation, Washington D.C., December 12, 2006.

Instructional Time and Curricular Emphases: U.S. State Policies in Comparative Perspective

Aaron Benavot

Aaron Benavot currently serves as Senior Policy Analyst on the Education for All Global Monitoring Report team located at UNESCO headquarters in Paris and is a Senior Lecturer (on leave) from the Department of Sociology and Anthropology at the Hebrew University of Jerusalem (Israel).

Introduction

The monitoring of pupil achievement in reading and mathematics has expanded significantly since the passage of the No Child Left Behind (NCLB) Act in the United States. As a consequence, schools are under intense pressure to devise strategies to strengthen student performance in these subjects. At the same time, there has been a proliferation of comparative studies of pupil achievement (e.g., Programme for International Student Assessment [PISA], Trends in International Mathematics and Science Study [TIMSS], and Progress in International Reading Literacy Study [PIRLS]), which focus on intercountry rankings in a relatively narrow set of subjects and competencies: mathematics, science, and reading literacy. Many scholars and analysts, in the United States and elsewhere, are concerned that the disproportionate attention to monitoring achievements in these subject areas may unintentionally contribute to a diminution of focus on other curricular subjects (e.g., social studies, arts, and foreign languages) and thus contribute to a narrowing of the school curriculum.

In light of these concerns, reforming school time policies becomes a salient issue. Typically, instructional time policies are framed within the context of a "zero-sum game." In other words, there are a set number of school days per year and hours per school day during which the weekly curriculum must be distributed. If some subjects gain in importance, others must, by definition, be weakened. Other options, however, can be contemplated. For example, if overall instructional time is increased, then there may be less pressure to "narrow the curriculum," because there would be sufficient time to bolster instruction in mathematics and reading while maintaining in-depth instruction in other subjects, such as history, civic education, and the arts.

Proponents of education reform have often examined foreign education systems when considering various policy options. The present study follows this tradition, by drawing explicit comparisons of the instructional time and curricular poli-

cies of U.S. states with countries that are members of the Organisation for Economic Co-operation and Development (OECD). Specifically, this paper uses different official sources to compare U.S. states and OECD countries on intended yearly instructional time and the relative emphasis given to major curricular subjects during primary and lower secondary education (first through ninth grades). The quantitative information is drawn from official documents published by U.S. state governments and compiled by the United Nations Education, Scientific and Cultural Organization's (UNESCO's) International Bureau of Education (IBE) and the OECD.

In relation to overall instructional time, these comparisons show the following:

- On average, OECD countries mandate about 700 to 720 yearly hours of instruction time in the first two years of primary education. Intended instructional time increases in each subsequent grade level and reaches more than 900 annual hours in ninth grade—an average increase of about 25 annual hours per grade, with significant jumps in third through fifth grades and between sixth and seventh grade. Time policies show considerable variation in the early primary grades and greater homogeneity and convergence in the upper grades of primary education.
- U.S. states on average hold classes for 170 to 180 days a year (the average being between 177 and 179 days).
- For the U.S. states that provide detailed information on how many hours during the school day are devoted to instruction, it is estimated that students should receive, on average, between 874 and 891 hours of instructional time in the early primary grades (first through third grades). This increases to between 925 and 930 hours in fourth through sixth grades and between 960 to 982 hours during junior high and senior high school grades. As is the case in OECD countries, time policies in U.S. states are more heterogeneous in first through third grades and in high school grades and less so in fourth through sixth grades of elementary school.
- Overall, then, the *official intended school year* is longer in almost all U.S. states (i.e., they allocate more hours per year for classroom instruction) in elementary and high school grades than the average OECD country.

In relation to curricular emphases, these comparisons show the following:

- Language education is *the* core subject area in the first nine grades of formal schooling, although its relative emphasis declines in the upper-elementary grades. In addition, most OECD countries teach more than one "official" language or require foreign language instruction in the elementary grades.
- U.S. states tend to place considerably more emphasis on language arts than the vast majority of OECD countries. However, U.S. states require little instruction in foreign language(s) in the elementary grades and, if they do, the relative emphasis of this subject area is weak.
- Mathematics is required throughout the primary and lower secondary grades, although its emphasis declines at the higher grade levels. Official mathematics policies in U.S. states are similar to those in OECD countries: on average, 18 percent of total instructional time is devoted to mathematics instruction.
- Instruction in the natural and physical sciences is required in all OECD countries and its relative emphasis in the official curriculum increases across grade levels. The evidence suggests that U.S. states devote relatively more attention to the sciences than OECD countries.
- In most countries, the teaching of social science subjects typically follows (in terms of grade sequencing) the teaching of basic literacy and numeracy. Subjects like history, geography, civics, and, to a lesser extent, social studies are less prevalent in first through fourth grades, and more prevalent in fifth through eighth grades.
- The evidence suggests that U.S. states place relatively greater emphasis on social science subjects (e.g., social studies, history, geography, and civics) in the elementary grades than OECD countries. The opposite is the case for aesthetic education (e.g., art, music, dance, and singing). Comparisons of subject emphases at the junior high level were unavailable.

The paper is organized into five parts: The background section briefly reviews relevant background literature and previous research. The section on methodological considerations describes the research methodology, including the compilation of curricular data and the construction of the study's main variables.² The findings section presents trends and patterns for total yearly intended instructional time mandated in OECD countries and relevant U.S. states, and presents trends in curricular emphases in OECD countries and selected U.S. states. The concluding discussion places the main findings in the context of previous research.

Background

In recent years, there has been a renewed interest in the curricular contents of national education systems—how they are structured, the extent to which they have changed over time, and how much they influence what kids know and learn. Because in large part of the highly publicized, comparative studies of pupil achievement sponsored by the International Association for the Evaluation of Educational Achievement (IEA), the OECD (e.g., PISA), and UNESCO,³ policy makers are paying greater attention to key school resources such as available instructional time, the organization of the school curriculum, languages of instruction, teacher effectiveness, and the scope, pace, and complexity of classroom instruction.

For comparative education scholars, international studies of pupil achievement have called into question widely held assumptions about the curriculum. For example, many scholars assume that the school curricula of education systems fundamentally reflect national priorities or distinctive cultural worldviews, thus making broad comparisons of school curricula especially difficult and problematic. Social historians of school curricula, who examine changes in the configurations of education knowledge, assume that "internal" societal actors—for example, national stakeholders, economic elites, disciplinary gatekeepers, and education specialists—play the dominant role in determining what counts as official school knowledge.

Cross-national studies of school curricula, by contrast, downplay national contestations over subject contents and highlight the globalizing forces of cultural isomorphism. Such analyses of official curricular structures underscore the extent to which the basic categories of the school curriculum became increasingly standardized over the course of the twentieth century. Other findings to emerge from these studies include the following:

- Most subjects taught in primary schools belong to six major curricular categories: language education, mathematics, natural sciences, social sciences, aesthetic education, and physical education. These categories represent the basic primary curriculum worldwide and typically consist of between 80 and 90 percent of total instructional time during the first six grades of schooling. Other subject categories—for example, religious and moral education, health education, and vocational education and practical skills—are required in many education systems, although their presence is contingent on historical or cultural conditions.⁷
- From 1920 to 1985, the relative emphasis on these major curricular areas remained remarkably stable. Two longitudinal trends were discerned: (1) the

- emphases on mathematics, natural sciences, and foreign languages increased over time; and (2) the teaching of history, geography, and civics as separate subjects declined in favor of a more interdisciplinary subject like social studies.
- Although the structure of primary school curricula remained fairly stable, the specific contents of certain subjects experienced considerable shifts. Principles such as individualism, child-centrism, a rationalized polity, and environmental protection gained prominence in national curricula.⁸ Transnational topics became more pervasive in the social sciences,⁹ and civics increasingly emphasized the post-national citizen actively involved in world affairs.¹⁰
- At the upper-secondary level, gymnasium-type programs and classical language instruction declined in almost all world regions (Europe being a notable exception). Concurrently, there was an increase in the prevalence of general/comprehensive programs and specialized tracks emphasizing mathematics, sciences, and modern languages.¹¹
- Most academic upper-secondary systems followed two basic organizing principles: (1) a single, general, or comprehensive high school program allowing some measure of course selection by students; or (2) two or more specialized programs of study (e.g., mathematics and science, humanities, law), each emphasizing distinctive contents. The latter mode typically emerged in systems in which classical programs once predominated. Some countries mixed or combined these two modes.

Overall, these studies underscore the growing isomorphism of national curricular policies. Official policies of subjects to be taught and time emphases—mainly at the primary level and, to a lesser degree, at the secondary level—have been converging. These findings capture not only the predominance of the nation-state as the site at which school curricula are constructed and sanctioned, but also the spreading influence of international organizations and transnational professionals in diffusing legitimate prescriptions of educational knowledge and rationalized curriculum models. ¹² Cultural distinctiveness and national historical legacies continue to shape curricular policies, but the influence of highly institutionalized world models has become more salient. ¹³

Why Are Instructional Time Policies Important?

In the vast majority of education systems, government authorities mandate a certain number of years—and a set quantity of hours per year—during which pupils are required to be in school and engaged in classroom learning. To be sure, not all school or classroom time is devoted to formal instruction. Nevertheless, the organization of school time is the object of sustained attention by education authorities, who determine how instructional time should address general education aims and purposes as well as specific curricular goals. 14 Other education stakeholders—professional associations, trade unions, teachers, and the business community—often voice concerns about allocations of school time in the official curriculum. Parents are interested in time policies, not only because they affect pupil learning and school success, but also because they can influence moral character, life aspirations, community responsibility, and family loyalty. For children from poor households, the time spent in school represents a relatively protected space outside the vicissitudes of rural or urban life—often an alternative from long hours in low-paying jobs or unpaid labor. In short, school time policies are not simply an issue of teaching and learning; they demarcate an institutionally embedded time interval in which societal purposes, education ideals, and parent-child ties intermesh.

A widely held assumption in the research literature concerns the impact of instructional time on pupil learning.¹⁵ Simply stated, the more time that pupils are required to be present in classrooms, the greater the positive effects of that time on desired learning outcomes, such as knowledge acquired, skills mastered, and values and attitudes internalized. More complex models of allocated time integrate school and classroom contingencies, such as teacher absences because of strikes, in-service training, conferences, or illness, as well as time allocated to noninstructional activities, such as recreation, recesses, examinations, holiday celebrations, or classroom management.¹⁶

Major studies, which have synthesized the findings of dozens of smaller studies, have reached conflicting results. Some meta-analyses indicate strong associations between time in school and learning.¹⁷ Others raise doubts about the presumed positive benefits of more allocated time on learning.¹⁸ Increasingly, the evidence suggests that over some basic threshold, it is not the amount of time per se that improves learning outcomes, but how that allotted time is actually organized by schools and in classrooms. In particular, the key issue is whether students are actively engaged in learning activities while at school. Despite this emerging evidence, the presumed benefits of simply increasing instructional time have considerable currency in national and international policy circles.

Methodological Considerations

This section briefly describes the variables employed in this paper.¹⁹ **Intended annual instructional time** is defined as the number of yearly hours that education authorities decide local schools should devote to the teaching of all required and optional curricular subjects as well as other planned learning activities. This quantity of time is not the same as the amount of time that schools are open each year, because it subtracts school time intended for noninstructional purposes (e.g., recess, meals, and passing time).

In most countries, systemwide policies concerning annual instructional hours are inextricably linked to official guidelines concerning the school curriculum. Thus, the best way to estimate annual instructional time is by compiling information from the following: (1) an official timetable (or school plan) that lists the subjects to be taught at each grade level (or education cycle) and the number of weekly periods or instructional hours mandated for each subject;²⁰ and (2) an official statute or administrative decision specifying the length of the working school year in weeks or days. The figures for the OECD countries analyzed in this paper draw on an IBE compilation of such official curricular documents (see the methodological appendix).

Unlike in the OECD countries, instructional time policies in the United States are not mandated at the national level. Policies concerning required annual instructional hours and days are most often set by state governments or, in some cases, by county, city, or district officials and during collective bargaining (see Walsh chapter). Thus, to estimate annual instructional time in U.S. schools, information was compiled from two types of sources: (1) official state legislatures and administrative statutes that establish the minimum yearly amount of required instructional hours (or days per year); and (2) official curricular guidelines that specify the minimum number of hours students must spend each day, week, or year on each curricular subject. The official documents employed in this study were found through Web searches and in official compilations used by state legislatures.²¹

Official policies regarding intended instructional time should not be confused with the amount or intensity of instructional time that students *actually* receive. School surveys in both more and less developed countries indicate that many factors—for example, school closures, teacher absenteeism and strikes, political disruptions, agricultural cycles, and natural disasters—create disjunctures between official time policies and classroom realities.²²

In theory, the **official school curriculum** encompasses several interrelated components: a specification of the subjects to be taught, quantities of instructional

time allocated to subjects, authorized textbooks to accompany classroom instruction, authorized lesson plans or syllabi used by teachers, and directives or guidelines concerning pedagogy and assessments. The present paper focuses only on the first two components of the curriculum.

The IBE database classified instructional time for each curricular subject or educational activity, by grade level, into a detailed scheme of 32 subject areas, which was later reclassified into 10 curricular categories.²³ Language education presented a rather complex subject area to analyze and was divided into four categories: official/national; local/regional; foreign language; and literature.²⁴ The determination of official languages was based on UNESCO's *World Culture Report*.²⁵ In this paper, the time devoted to language was determined by summing instructional time for official, local, and regional languages as well as for literature; instructional time for foreign languages was analyzed separately.

In general, it should be reiterated that the IBE classification of official curricular subjects was based on the subject labels listed in the official timetables and not the *actual* contents of the labels.

Findings

The paper's main findings are divided into two sections: the first compares up-to-date information on instructional time policies in OECD countries and U.S. states for first through ninth grades. The second examines the relative emphasis countries place on core subject areas: language education, mathematics, sciences, the social sciences, and aesthetic education. Information on official curricular policies in a handful of U.S. states is highlighted and compared with the more extensive information available for OECD countries.

Official Intended Instructional Time: A Comparative Perspective

Table 1 reports annual instructional time in first through ninth grades in OECD countries for the most recent period, typically for the years 2000–02. For several countries, reliable information at the national level or for the entire country was unavailable, so data for more limited geopolitical entities within the countries is reported. Several interesting results emerge: First, during the first two years of primary education countries mandate, on average, about 700 to 720 hours of instructional time per year. Intended instructional time increases in each subsequent grade level and reaches more than 900 annual hours in ninth grade—an average supplement of about 25 annual

hours per grade. These increases, however, are not linear: there are significant jumps during third through fifth grade, and then again around the transition between primary and lower-secondary education between six and seventh grade. In between these transition grades, increases in annual instructional time are modest.²⁶

Second, a certain degree of convergence is apparent in table 1 (note the standard deviations at each grade level). National policies concerning intended instructional time vary considerably in the early primary grades and show greater homogeneity and convergence in the upper grades of primary education (fourth through sixth grade) and, to a lesser extent, in lower-secondary education (seventh through ninth grade). Thus, concurrent with increases in instructional time, education systems become increasingly similar with respect to instructional time policies in primary education.

Table 2 examines yearly instructional time policies for first through twelfth grades in 38 U.S. states. In the remaining 12 states, official time policies either do not exist or could not be identified. Table 2 classifies states into two groups depending on the availability of detailed information on noninstructional time provided by official sources. States that report information on time set aside for passing between classes, lunch, recesses, and parent-teacher conferences are placed in the first group of states, namely, those with "defined" instructional time policies. States lacking such detailed information are placed in the second group.

For U.S. states providing detailed information on noninstructional time, we estimate that, on average, states allocate about 874 to 891 hours of instructional time in the early primary grades (first through third). This increases to between 925 and 930 hours in fourth through sixth grade and between 960 and 982 hours during junior high and senior high school grades. As in OECD countries, time policies are more heterogeneous in first through third grade and in high school grades; they are more homogeneous in fourth through sixth grade in elementary school.²⁷

The most significant finding to emerge from table 2 is that **U.S. states allocate**, **on average**, **more hours per year for classroom instruction than member countries of OECD**. Among the 27 U.S. states with fairly detailed time information, intended yearly instructional time favors U.S. states at all grade levels. The advantage of U.S. states over OECD countries is highest in the early grades of primary education (on average about 150 to 180 additional hours per year) and remains significant in the upper grades of primary education and in junior high school (ranging from 80 to more than 150 extra hours).²⁸

Tables 3a and 3b further illustrate this finding for third through fifth and sev-

enth through ninth grades, respectively. For example, Table 3a shows that in third through fifth grade, the length of the school year in most U.S. states (measured by annual instructional hours) tends to be longer than that of OECD countries. Only in Wyoming, South Carolina, Arizona, Oregon, and California are annual instructional time policies closer to the pattern found in OECD countries. Table 3b, which averages data for seventh through ninth grade, shows a similar pattern, although slightly more U.S. states fall within the midrange of OECD countries. In short, **intended yearly instructional time in most U.S. states** (with comparable data) tends to be higher than in advanced industrial countries. There is little evidence that the official time policies of U.S. states fall short of those prevalent in OECD countries. It would appear that the more pertinent question is not how much instructional time is available, but rather how is instructional time used and for what curricular purposes?

Which Curricular Subjects Are Emphasized in Official School Curricula?

The subsections below examine how countries distribute annual instructional time into broad curricular categories and specific school subjects during the primary and lower-secondary grades. Comparisons between U.S. states and OECD countries are limited because few of the former have explicit policies specifying the amount of instructional time to be allocated to particular subject areas. Data for OECD countries are more extensive, because they derive from two complementary sources: IBE compilations and OECD's *Education at a Glance*.²⁹ Key findings for major curricular categories are noted below.

Language Education. All countries require instruction in more than one language during the compulsory school years. Indeed, language education is *the* core subject area in the first nine grades of formal schooling. Instruction in *all* language-related subjects (including foreign languages) accounts for a preponderant component of the primary and lower-secondary curriculum. Cross-national analyses point to the growing prevalence of foreign language instruction during the primary school grades. Since the 1980s, more and more countries are requiring pupils to learn a foreign language at the primary level, a requirement which is being introduced at earlier stages of primary education than in the past.³⁰ The strengthening of foreign language instruction highlights the impact of economic and cultural globalization. Countervailing cultural legacies and national differences, however, continue to influence administrative decisions as to which languages are used as a means of instruction and which are taught in school.

Turning to the current situation in OECD countries, tables 4a and 4b report the relative emphasis on language education in third through fifth and seventh through ninth grades, respectively. On average, language education (excluding foreign languages) takes up about one-third of the total instructional time in third through fifth grade and about 30 percent in seventh through ninth grade. As seen in table 4a, some countries such as Luxembourg and the Czech Republic allocate more than 40 percent of instructional time in third through fifth grade to language education, while others, such as Japan, Korea, and Iceland, allocate less than 25 percent of total instructional time. OECD countries differ in the extent to which they require instruction in foreign language(s) in third through fifth grade. Most OECD countries require foreign language instruction in these grades, although quite a few countries (e.g., the Netherlands, the United Kingdom, Ireland, Japan, Mexico, and China) do not. And among countries requiring instruction in a foreign language, some countries (e.g., Italy, Belgium, and Spain) devote more than 10 percent of total instructional time to this curricular subject.

In the lower-secondary grades (seventh through ninth), as seen in table 4b, the overall emphasis on language education declines, but more attention is given to foreign languages. At this level, considerable variation is found among OECD countries in the relative emphasis placed on language education, especially with respect to foreign languages. The information on curricular emphases in table 5, which reports the percentage of total compulsory education devoted to reading, writing, and literature, on the one hand, and modern foreign languages, on the other, confirms the previously noted patterns.

Table 6 reports curricular emphases in elementary education for five U.S. states (Arizona, Connecticut, Massachusetts, Missouri, and Wisconsin) based on official state documents. (Official policies for other U.S. states were not identified.) The table separately averages time allocations per subject area for first through third grade and fourth through sixth grade. With respect to language education, two results are striking:

- U.S. states place considerably more emphasis on language arts than the vast majority of
 OECD countries. In first through third grade, language education takes up more than
 45 percent of total instructional time, and in fourth through sixth grade, it receives 37
 percent. By contrast, the OECD average for third through fifth grade is 32 percent.
- U.S. states apparently require little instruction in foreign language(s) in the elementary grades, and if they do, the relative emphasis this subject receives is minimal. By contrast, about three-quarters of OECD countries teach foreign languages in third through fifth grade and, among those that do teach the subject, it receives greater emphasis in the official curriculum.

Mathematics Education. Mathematics is the second most prominent subject area in official school curricula.³¹ Although instruction in mathematics is required throughout primary and lower-secondary education, its relative emphasis declines in successive grades, particularly in secondary education. For example, OECD countries allocate, on average, about one-fifth (18 percent) of total instructional time to mathematics in third through fifth grade (see table 4a). Countries that give greater emphasis to mathematics in these grades include Mexico, the Czech Republic, the Netherlands, Australia (Queensland), and Canada (Quebec); countries that give relatively less emphasis include Ireland, Turkey, and Korea. In the lower-secondary grades (seventh through ninth), the relative emphasis on mathematics education declines to 13 percent (see table 4b).³² Differences among OECD countries in the emphasis given to mathematics also tend to decline between grade levels.

Previous research on mathematics education, which examined the 1925–85 period,³³ reported a worldwide *increase* in the emphasis on mathematics in primary education over time. Recent evidence, however, suggests that this trend has halted. Indeed, given the media attention to, and heightened public awareness of, comparative surveys of mathematics achievement (e.g., TIMSS and PISA), and the presumed importance of mathematical knowledge and competencies, the global leveling off of emphasis on mathematics education in recent decades is rather surprising.

The evidence on mathematics education in table 6, which summarizes official policies in five U.S. states, indicates that these official policies do not appear to significantly differ from those in OECD countries. On average, mathematics education receives 18 percent of total instructional time in U.S. states (with no difference between first through third and fourth through sixth grades)—exactly the same average percentage it receives in OECD countries.

Science Education. Instruction in the natural and physical sciences is required in all OECD countries both at the primary and lower-secondary levels. The relative emphasis on science education increases across grade levels: for example, OECD countries allocate an average of 8 percent of total instruction time to the sciences in third through fifth grade (see table 4a) and about 11 percent in seventh through ninth grade (see table 4b). The emphasis placed on the sciences tends to vary more widely in the high school years and less during the primary school years. If instructional time devoted to technologically oriented education or applied science is included (see table 5), then the overall emphasis on science-related education becomes even more significant.

Overall, countries allocate about 25 to 30 percent of total instructional time to instruction in mathematics, sciences, and technology. In many countries a trade-off occurs between mathematics, on the one hand, and sciences and technology, on the other, with little change to the cumulative emphasis these subjects receive in the official curriculum. In other words, as pupils move from primary to lower-secondary grades, the emphasis on mathematics declines and that on sciences and technology increases, with little change in the total time allocated to these three subject areas.

A comparison between science education policies in U.S. states and OECD countries suggests that this area receives more attention in the United States than abroad (see table 6). Specifically, the U.S. states allocate, on average, 9 percent of instructional time to science education in first through third grade and 12 percent in fourth through sixth grade. The comparable figure in OECD countries (for third through fifth grade) is 8 percent.

Social Sciences and the Arts. Beyond the presumed "core" of the official school curriculum—literacy, numeracy, and science—it is important to examine the emphasis countries give to history, geography, social studies, civics, environmental studies, arts, music, and other humanistic subjects. Although some subjects (e.g., history, geography, and social studies) are highly institutionalized, and feature prominently in official school curricula, other subjects like civics and citizenship education or environmental studies represent relatively "new" curricular subjects, which are in the process of being made legitimate. Some of these subject areas are the focus of considerable contestation and public controversy.

Cross-national studies indicate that, first, the teaching of history, geography, civics, and, to a lesser extent, social studies is less prevalent in first through fourth grade, and more prevalent in fifth through eighth grade. The opposite is true for environmental studies. Stated differently, in most countries, instruction in social science subjects tends to increase in the upper grades of primary education and in secondary education. Second, there are clear increases in the proportion of countries worldwide that require instruction in civics and environmental education, mainly in the primary grades. The growing emphasis on citizenship education follows in the wake of the disestablishment of the Union of Soviet Socialist Republics (USSR) and Yugoslavia, and the ongoing support for more open, participatory regimes. The increasing prevalence of environmental education exemplifies the impact of transnational social movements and changing international discourse in support of environmental protection and sustainable

development. Third, countries differ in the basic model of social science education they adopt: in some cases, history, geography, and civics tend to be bundled together; in others, an interdisciplinary subject such as social studies is taught. Empirically, the relative emphasis placed on history and geography is negatively associated with that accorded to social studies.³⁵ These divergent models are more evident in the lower-secondary grades. Fourth, there is considerable consistency in the global trends for aesthetic education, by grade level and time period, with some interesting regional variation.³⁶

Based on current policies (see tables 4a and 4b), OECD countries allocate, on average, 9 percent of instructional time to the social sciences in third through fifth grade and 11 percent in seventh through ninth grade. By contrast, the emphasis on aesthetic education is stronger in the lower grades (14 percent) than in the higher grades (9 percent). In the U.S. states, the subject of social studies receives more attention in fourth through sixth grade (on average, 12 percent of intended time) than in OECD countries (see table 6). Instruction in art and music receives only 8 percent of total time, on average, considerably less than in most OECD countries.³⁷

Subject Trade-Offs in the School Curriculum. Official policies concerning the subjects to be emphasized in primary and lower-secondary curricula frequently involve trade-offs, owing to the zero-sum nature of intended instructional time. Curricular reforms meant to enhance the teaching of, say, language, science, or technology, typically entail providing less time for other subjects. Such trade-offs can occur between and within subject categories (even across grades), and they often involve subjects that are less institutionalized worldwide. Existing evidence suggests that distinctive cultural forces and national legacies influence curricular trade-offs.

Unreported cross-national correlations of curricular emphases provide information about the subjects between which curricular trade-offs tend to occur. They show modest negative associations between modern (computer/technology) and traditional (vocational) skills categories, between an emphasis on science, on the one hand, and religious education and environmental education, on the other. They also show that subjects addressing the physical health of students often involve a trade-off with sports. Perhaps more important, the emphasis on language education tends to constrain the time available for other subjects in the primary curriculum. For example, countries mandating relatively more time for language

education (excluding foreign languages) place less emphasis on sciences, arts, and social sciences (mainly social studies). To be sure, most associations are modest in magnitude (the correlations range from 0.20 to 0.40), and they are not always consistent at the primary and lower-secondary grades. Nevertheless, these relationships illustrate how ideological, organizational, and pedagogical constraints influence the structuring of official instructional time by education authorities.

Concluding Discussion

In this paper, official policies on instructional time and curricular emphases were compared between U.S. states and OECD countries. Data on intended yearly instructional time (the number of hours per year children are meant to be learning in classrooms) are one education dimension, which, if estimated carefully, can be validly compared across education systems. Conversely, comparing U.S. states and industrial countries in terms of curricular emphases (the proportion of intended instructional time devoted to different subjects or curricular areas) is more problematic. Unlike countries in much of the world, most U.S. states do not mandate an official curricular timetable specifying required subjects to be taught at each grade level. Thus, it is hard to establish with certainty the relative amount of time that U.S. students are taught certain subjects during the elementary or junior high school grades.

Notwithstanding these qualifications, two major findings emerge from the present study that can, and should, inform current policy discussions in the United States.

First and foremost, official school time in most U.S. elementary and junior high schools, when converted into yearly instructional hours, is higher on average than among OECD member countries. This suggests that since the 1980s when *A Nation At Risk* raised public consciousness for education reform because of the "rising tide of mediocrity," and explicitly noted deficits in instructional time, U.S. education authorities have successfully increased intended instructional time *per year* relative to other advanced industrial countries. The instructional time advantage of U.S. pupils, when compared with their counterparts in developed countries elsewhere, ranges from 80 hours to more than 180 hours, depending on grade level. This does not mean that teachers and students are using this bounty of inclass time in efficient and effective ways or that significant pupil learning is the norm. It does mean that calls to raise the quantity of instructional time seem misplaced, when placed in comparative perspective. The pressing issues today would

appear to be more curricular and pedagogical in nature—in other words, more qualitative than quantitative.

The second finding, based on more tentative evidence, indicates that U.S. states that do establish curricular guidelines at the elementary level, allocate much more time to three basic subject areas—language (but not foreign language), mathematics, and science—than OECD countries. This paper found that these three curricular domains receive 73 percent of all instructional time in first through third grade and 68 percent in fourth through sixth grade. Among OECD countries, by contrast, these three subject areas receive, on average, only 57 percent of total instructional time in third through fifth grade. (For example, Denmark tops the list and allocates 67 percent of total time.)

Thus, the elementary school curriculum in some U.S. states is dominated by a few subject areas. As a result, considerably less time is available for noncore subjects in the social sciences and humanities, as well as a range of other subject areas. This, together with the fact that foreign languages are rarely taught in elementary schools, means that the intended curriculum of most U.S. elementary schools focuses disproportionately on a relatively few areas of human knowledge and scientific pursuit. In short, the waning of curricular diversity in U.S. elementary schools, if validated in other states, clearly deserves further critical attention.

Methodological Appendix

To calculate intended annual instructional time in Organisation for Economic Cooperation and Development (OECD) countries, the International Bureau of Education (IBE) database compiled information on three quantities:

- The duration of the "working" school year, expressed as the number of days or weeks that schools are open and classroom instruction is supposed to take place;
- The number of teaching "periods" (lessons or instructional "hours") allocated to each subject and grade level as specified in official curricular timetables or other curriculum-related documents; and
- The average duration of "periods" (lessons or "hours"), expressed in minutes.

Although national documents provide relatively precise information on the last two components, determining the exact number of working days in a typical school year is sometimes problematic. For example, systems that devote certain days to examinations, teacher in-service training, in-school holiday celebrations, or extracurricular activities may include this time in official figures for "working" weeks. Sustained efforts were made to verify this information and subsequently revise, when necessary, national figures on the actual number of working school days for each grade level. In addition, daily or weekly time set aside for breaks and recreational activities was, whenever possible, deleted from estimates of intended instructional time. For some federal states, a national average can be calculated based on recommendations at the federal level. For Canada, Germany, and Switzerland, however, estimates at the federal level were not used because of significant cross-province variation.

In general, instructional time data for the 2000s is more reliable than data for the 1980s. The main reasons for this are as follows: (1) the use of a single source of data compilation (IBE), rather than multiple sources; (2) the growing detail and precision of official national documents; and (3) the ability to crosscheck questionable figures by examining national sources via the Internet or through exchanges with official authorities. To enhance the validity of the study's findings, only countries with instructional data at both time points were included in the analyses. Several "problematic" cases were dropped because of questionable figures, usually for the 1980s. In short, the reported analyses are based on the best available data.³⁸

The IBE identified scores of timetables, which were divided by historical period and coded according to standard rules and procedures. These rules specified, for example, how to code subjects listed as combined subjects, interdisciplinary subjects, or electives, and how to deal with timetables accommodating regional, linguistic, cultural, or religious differences.³⁹ As a result of the coding process, instructional time was classified, by grade level, into either 32 detailed subject areas or 10 more general curricular categories.⁴⁰

In the end, three variables were constructed for cross-national and longitudinal comparisons:

A dichotomous variable based on whether (or not) a subject or category was
taught in an official timetable. Using this variable, we estimated the proportion
of countries in the world (or geographic regions) that require instruction in a
specified subject area.

- A ratio variable based on the percentage of total instructional time that was allocated to each curricular subject or category. Using this variable, we estimated the percentage of total instructional time allocated to different subjects, that is, the relative emphasis on different subjects in the official curriculum.
- An interval variable based on the number of yearly hours of instruction devoted to each subject area, per grade or education level (primary, lower secondary, or upper secondary). This variable estimates the quantity of annual instructional time that students are expected to learn various subject areas.

TABLE 1: INTENDED YEARLY INSTRUCTIONAL HOURS IN OECD COUNTRIES, CIRCA 2000-2, BY GRADE LEVEL

	TOTA	L YEAR	LY INS	TRUCT	ONAL	TIME II	N OECD	COUNT	TRIES
Country	1st	2nd	3rd	4th	5th	6th	7th	8th	9th
Australia (Queensland) ¹	860	860	860	800	800	800	800	800	800
Austria	630	630	750	750	870	960	960	990	1020
Belgium (German community) ²	850	850	850	850	851	851	971	971	971
Canada (Quebec) ³	846	846	846	846	846	846	900	900	900
Czech Rep.	570	627	656	684	713	770	798	855	855
Denmark	660	683	773	773	803	840	900	990	900
Finland (min.) ⁴	542	542	656	656	684	684	855	855	855
France (est.) ⁵	936	936	936	936	936	858	858	858	858
Germany (Berlin)	478	591	675	731	816	816	816	788	872
Greece	656	656	683	761	761	761	919	919	919
Hungary	555	555	624	624	693	692	763	762	832
Iceland	681	681	681	681	747	747	793	815	816
Ireland	702	702	885	885	885	885	885	885	1080
Italy (est.)5	850	850	950	950	950	917	917	917	933
Japan	587	630	683	709	709	709	817	817	817
Korea, Rep. of	554	567	658	658	726	726	867	867	867
Luxembourg	840	840	840	840	840	840	900	900	900
Mexico	800	800	800	800	800	800	1167	1167	1167
Netherlands	850	850	850	850	950	950	950	950	1067
Norway	570	570	570	570	770	770	770	855	855
Poland	656	656	656	798	798	798	884	884	884
Portugal	840	840	840	840	918	918	972	972	972
Slovakia	614	644	702	731	761	819	848	848	848
Spain (average) ⁶	788	788	788	788	788	788	1050	1050	1120
Sweden (average) ⁶	741	741	741	741	741	741	741	741	741
Switzerland (Zurich) ⁷	527	611	694	749	805	805	944	944	944
Turkey	720	720	720	720	720	720	720	720	792
UK (England) ⁸	792	792	846	846	846	846	900	900	900
OECD Average	703	716	758	770	805	809	881	890	910
Standard Deviation	129	114	100	91	77	74	96	96	102
India (est.)	720	720	720	720	720	900	900	900	900
China	765	791	816	842	842	842	918	944	918
Russian Federation	545	638	638	638	791	816	867	893	893

Source: International Bureau of Education (Geneva), 5th Edition of World Data on Education

¹ Data represents Queensland state only.

² Data represents German Community.

³ Data represents Quebec only.

⁵ Estimate. 6 Average.

⁷ Data represents Zurich only.

⁴ Data represents minimum required time. 8 Data represents England only.

TABLE 2: INTENDED ANNUAL INSTRUCTIONAL HOURS FOR TWO CATEGORI

TABLE 2. INTERDED ARROAL INSTITUTIONA		0 N 3 1 O		CAILOUI
	NUM	BER OF	REQUIR	ED YEARLY
Grade	1	2	3	4
Arizona	712	712	712	890
Arkansas	1068	1068	1068	1068
California ¹	810	810	810	870
Colorado ²	932	932	932	932
Connecticut	900	900	900	900
Georgia	810	810	810	900
Idaho	810	810	810	900
Indiana ³	870	870	870	870
Iowa	990	990	990	990
Kansas⁴	962	962	962	962
Louisiana	1050	1050	1050	1050
Maine	875	875	875	875
Maryland	1080	1080	1080	1080
Massachusetts	900	900	900	900
Michigan ⁶	948	948	948	948
Mississippi	900	900	900	900
Missouri	957	957	957	928
Montana ⁷	690	690	690	1050
New Hampshire	945	945	945	945
New York	990	990	990	990
Ohio	910	910	910	910
Oregon ¹¹	780	780	780	870
South Carolina ¹⁴	810	810	810	810
South Dakota ¹²	843	843	843	930.5
Utah	810	990	990	990
Vermont	700	700	962.5	962.5
Virginia	990	990	990	990
Wisconsin ¹³	930	930	930	930
Wyoming	781	781	781	781
Avg. hours for States with defined instructional time policies (n=29)		894	903	935
Standard Deviation	105	106	100	72
Alabama*	1050	1050	1050	1050
Kentucky ^{5*}	1050	1050	1050	1050
Nebraska®*	1032	1032	1032	1032
New Mexico ⁹ *	938	938	938	938
North Carolina*	1000	1000	1000	1000
Oklahoma ¹⁰ *	1080	1080	1080	1080
Pennsylvania*	900	900	900	900
Tennesse*	1170	1170	1170	1170
Washington*	1000	1000	1000	1000
Avg. hours for states without defined instructional time policies (n=9)	1024	1024	1024	1024
7.1.3		102.	1027	

^{**} Alaska, Delaware, Florida, Hawaii, Illinois, Minnesota, Nevada, New Jersey, North Dakota, Rhode Island, Texas and West Virginia are excluded from the table because they do no have explicit policies on required instructional time. The category of "defined" instructional policies refers to States that explicitly mention daily, weekly or annual time set aside for one or all of the following activities: recess, lunch, passing time to move from class to class, and teacher-parent conferences, which can be subtracted to calculate a more comparable figure with time policies in OECD countries.

***The quantities used for estimating instructional time in states where the policy does not specify time allocation: passing time (time spent transferring between classes), 10

^{***}The quantities used for estimating instructional time in states where the policy does not specify time allocation: passing time (time spent transferring between classes), 10 min. per day; recess, 30 min. per day; parent-teacher conferences 30 hours per year; Lunch, 30 minutes per day. These numbers are based on trends in states that specify time allocation for these activities.

¹ California includes 10 min. passing time (time spent transferring between classes) per day in its instructional time. For the purpose of this study, passing time was subtracted from yearly total.

² Colorado includes parent-teacher conference time in their instructional time policies. This time was deleted for the purposes of this table.

³ Indiana includes passing time in their instructional time. Estimate for passing per day subtracted.

ES OF US STATES, BY GRADE LEVEL (see notes at end of table)

INSTR

RUCTIONAL	LHOUF	RS BY ST	ATE AN	D GRAD	E			
5	6	7	8	9	10	11	12	Days/year
890	890	720	720	720	720	720	720	180
1068	1068	1068	1068	1068	1068	1068	1068	178
870	870	870	870	1050	1050	1050	1050	180
932	932	1032	1032	1032	1032	1032	1032	160
900	900	900	900	900	900	900	900	170
900	990	990	990	990	990	990	990	180
900	900	900	900	990	990	990	990	170
870	870	1050	1050	1050	1050	1050	1050	180
990	990	990	990	990	990	990	962.5	180
962	962	1055	1055	1055	1055	1055	1054	186
1050	1050	1050	1050	1050	1050	1050	1050	175
875	875	875	875	875	875	875	850	173
1080	1080	1080	1080	1170	1170	1170	1170	180
900	900	900	900	990	990	990	990	180
948	948	1038	1038	1038	1038	1038	1038	180
900	900	900	900	900	900	900	900	180
928	928	928	928	1040	1040	1040	1040	17 4
1050	1050	1050	1050	1050	1050	1050	1050	180
945	990	990	990	990	990	990	990	180
990	990	1080	1080	1080	1080	1080	1080	180
910	910	910	910	910	910	910	910	182
870	870	870	870	960	960	960	960	X
810	810	810	810	900	900	900	900	180
930.5	930.5	930.5	930.5	930.5	930.5	930.5	930.5	170
990	990	990	990	990	990	990	990	180
962.5	962.5	962.5	962.5	962.5	962.5	962.5	962.5	175
990	990	990	990	990	990	990	990	180
930	930	1107	1107	1107	1107	1107	1107	180
781	781	1021	1021	1021	1021	1021	1021	175
935	940	979	979	993	993	993	991	177
72	73	92	92	86	86	86	88	5
1050	1050	1050	1050	1050	1050	1050	1050	175
1050	1050	1050	1050	1050	1050	1050	1050	175
1032	1032	1032	1032	1080	1080	1080	1080	X
938	938	1028	1028	1028	1028	1028	1028	180
1000	1000	1000	1000	1000	1000	1000	1000	180
1080	1080	1080	1080	1080	1080	1080	1080	X
900	900	900	900	990	990	990	990	180
1170	1170	1170	1170	1170	1170	1170	1170	180
1000	1000	1000	1000	1000	1000	1000	1000	180
1024	1024	1034	1034	1050	1050	1050	1050	179

⁴ Kansas instructional time calculations include parent teacher conferences, passing time and recess. Thirty minutes of instructional time is allotted daily for recess grades 1-6 For this table time allotted for recess was subtracted. Estimates of parent teacher conferences (30 hrs.) and passing time (10 min/day) were subtracted.

⁵ Components of instructional time unclear.

⁶ This time includes passing time, recess and parent-teacher conferences. Times adjusted based on estimates for passing time, recess and parent teacher conferences. 7 These times include passing time. Times adjusted based on estimates for

⁸ This time includes recess and passing time. Times have not been adjusted.

⁹ Includes passing time. Time allotted (22 hours) for parent-teacher conferences subtracted. Time has been adjusted based on estimates for passing time. 10 Components of Instructional time unclear. 11 Time included (up to 30 hours) for parent-leacher conferences subtracted.

¹² Hours included (up to 32) for parents teacher conferences subtracted. 13 Passing time and recess included. Times adjusted based on estimates for

passing time and recess. 14 30 minutes of lunch and recess is included in instructional time for grades 1-8 and excluded in grades 9-12. 30 min. per day was subtracted for both

^{*} Components included instructional time unclear

TABLE 3A: COMPARISONS OF YEARLY INSTRUCTIONAL TIME BETWEEN OECD COUNTRIES AND SELECT US AVERAGE FOR GRADES 3-5 (AGES 8-10)

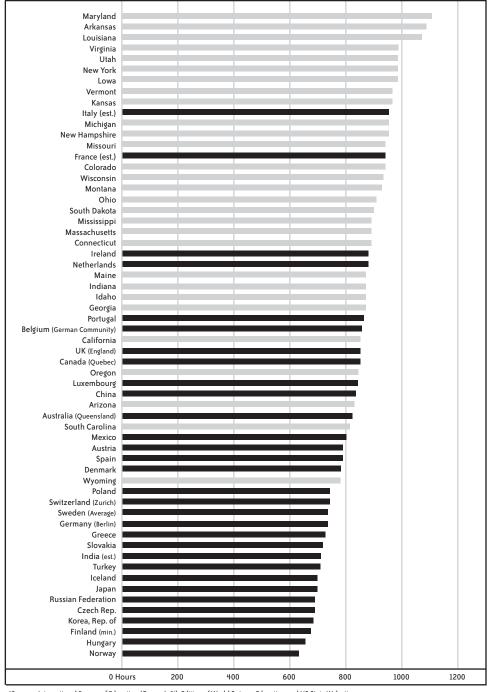


TABLE 3B: COMPARISONS OF YEARLY INSTRUCTIONAL TIME BETWEEN OECD COUNTRIES AND SELECT US AVERAGE FOR GRADES 7-9 (AGES 8-10)



TABLE 4A:

CURRICULAR EMPHASES: PERCENTAGE OF ANNUAL INSTRUCTIONAL TIME IN GRADES 3-5 ALLOCATED TO SELECT SUBJECT AREAS, **IN OECD COUNTRIES, 2000-02:**

	All Language Instruction except foreign languages	Foreign Language(s)	Mathematics
Luxembourg	46	0	18
Mexico	30	0	25
Czech Republic	33	8	21
Slovakia	31	5	20
Greece	31	7	14
Spain (Valencia)	27	10	20
Netherlands	39	0	21
Germany (Berlin)	24	12	19
Australia (Queensland)	24	5	21
Hungary	27	9	16
UK (England) (average)	32	0	19
Belgium (German comm.)	23	13	18
Denmark	26	9	17
Italy (est.)	20	10	20
France (est.)	24	6	20
Sweden (est.)	25	7	15
Norway	25	6	16
Austria	24	8	15
Finland (min.)	20	9	17
Ireland (est.)	33	0	13
Turkey	27	4	13
Canada (Quebec)*	30	х	21
Poland (est.)	20	7	15
Korea Rep. of	21	4	13
Switzerland (Zurich)	21	0	18
Japan	23	01	16
Iceland	18	2	14
OECD Average	27	5	18
Standard Deviation	6	4	3
China	24	0	15
Russian Fed.	32	4	16

^{*} In grades 1-6, Canada only allocates intended instructional time in language and math. This is symbolized by x.

^{**}Social Sciences include history, geography, social studies, civics and environmental studies.
***Arts, music, crafts and performance arts.

Science	% instructional allocated to core subjects	Social Sciences**	Aesthetic Education***	% of total instructional time allocated to non-core subjects
6	70	2	11	7
15	70	20	5	13
7	69	7	12	10
10	66	6	16	11
13	65	11	10	10
9	65	9	12	10
4	64	5	17	11
8	63	8	15	12
11	61	4	12	8
9	60	4	22	13
9	60	8	8	8
6	60	15	11	13
8	59	4	15	10
7	57	17	13	15
5	56	14	12	13
7	54	9	13	11
6	53	7	15	11
5	52	8	20	14
5	51	7	27	17
4	51	10	13	12
7	51	12	9	11
х	51	х	х	х
9	50	5	4	4
10	49	10	13	12
9	49	9	27	18
9	48	9	12	10
4	39	6	15	11
7	57	8	13	11
3	8	4	6	3
4	44	4	12	8
5	57	5	11	8

¹ Foreign language instruction in grades 3-6 may fall under "periods for integrated studies" or may be incorporated into other subjects.
2 Time is allotted to first and second languages (french and english).

³ Ireland may allocate time to two native languages (Irish and English). 4 This is the information that was avialable in the official timetables.

TABLE 4B:

PERCENTAGE OF ANNUAL INSTRUCTIONAL TIME IN GRADES 7-9 **ALLOCATED TO SELECT SUBJECT AREAS, IN OECD COUNTRIES, 2000-02**

	All Language Instruction except foreign languages	Foreign Language(s)	Mathematics
Denmark	19	22	13
Luxembourg	34	13	12
Switzerland (Zurich)	25	9	12
Hungary	14	14	11
Greece	24	15	11
Austria	28	9	9
Slovakia	15	10	15
Mexico	14	9	14
Sweden (est.)	11	18	16
Italy (est.)	25	11	13
Netherlands	23	7	17
Turkey	15	13	14
Canada (Quebec)*	28	02	15
Belgium (German comm.)	16	17	14
Germany (Berlin)	14	12	14
Czech Republic	14	10	14
Iceland	15	17	11
Spain (Valencia)	20	10	10
Poland (est.)	15	10	13
Ireland (est.)	30	03	10
Finland (min.)	11	16	11
Norway	17	10	13
France (est.)	16	11	13
Australia (Queensland)	13	8	13
UK (England) (average)	12	8	13
Korea Rep. of	13	10	11
Japan	12	11	11
OECD Average	18	11	13
Standard Deviation	7	4	2
China	16	11	14
Russian Fed.	16	9	14

^{*} In grades 1-6, Canada only allocates intended instructional time in language and math. This is symbolized by x.
**Social Sciences include history, geography, social studies, civics and environmental studies.
***Arts, music, crafts and performance arts.

Science	% of total instructional time allocated to core subjects	Social Sciences**	Aesthetic Education***	% of total instructional time allocated to non-core subjects
13	67	14	1	8
4	64	12	10	11
17	62	04	15	8
21	60	8	13	11
10	60	12	6	9
12	59	12	11	12
17	57	16	8	12
19	56	18	6	12
10	56	10	8	9
7	56	17	10	13
8	55	11	11	11
13	55	12	5	9
11	54	14	9	12
7	53	11	2	7
13	52	13	11	12
14	51	14	9	12
7	50	7	14	10
11	50	10	11	10
13	50	14	3	8
10	50	7	8	7
12	49	9	8	9
9	48	11	13	12
7	48	13	7	10
11	45	4	9	6
12	45	13	8	11
11	44	10	8	9
11	44	10	8	9
11	53	11	9	10
4	6	3	3	2
12	52	17	6	11
15	55	14	5	10

¹ Foreign language instruction in grades 3-6 may fall under "periods for integrated studies" or may be incorporated into other subjects.
2 Time is allotted to first and second languages (french and english).

³ Ireland may allocate time to two native languages (Irish and English). 4 This is the information that was avialable in the official timetables.

TABLE 5: INSTRUCTION TIME PER SUBJECT AS A PERCENTAGE OF TOTAL

COMPULSORY CORE CURRICULUM

١	Reading, writing and literature (1)	Modern foreign languages (5)	Math (2)	Science (3)	Technology (6)	Social Studies (4)	Arts (7)	Physical Education (8)	
Australia¹	13	1	9	2	2	3	4	5	
Austria	24	8	16	10	n	3	18	10	
Belgium (Fl.)1	а	а	a	а	а	а	а	a	
Belgium (Fr.)1	a	5	a	a	a	a	a	7	
Czech Republic ²	24	13	19	9	n	11	14	8	
Denmark	26	7	16	8	n	4	22	11	
England	27	n	22	10	9	8	8	7	
Finland	23	9	16	11	n	2	14	9	
France	30	9	19	5	3	10	9	14	
Germany	21	9	18	7	1	5	15	11	
Greece	29	10	14	11	n	11	8	7	
Hungary	28	9	16	6	n	7	15	11	
Iceland	16	4	15	8	6	8	12	9	
Ireland	29	x(13)	12	4	n	8	12	4	
Italy³	a	a	а	a	a	a	a	a	
Japan	19	n	15	9	n	9	10	9	
Korea	19	5	13	10	2	10	13	10	
Luxembourg*	25	21	18	6	n	2	11	10	
Mexico	30	n	25	15	n	20	5	5	
$Netherlands^{\mathfrak{5}}$	30	2	19	x(4)	2	15	10	7	
New Zealand	а	a	а	а	а	а	а	a	
Norway	23	6	15	7	n	8	16	7	
Poland ⁶	21	11	16	12	5	5	5	12	
Portugal ⁶	15	11	12	9	12	6	6	9	
Scotland	a	a	a	a	a	a	а	a	
Slovak Republic	m	m	m	m	m	m	m	m	
Spain	22	13	17	9	n	9	11	11	
Sweden	22	12	14	12	x(3)	13	7	8	
Switzerland	m	m	m	m	m	m	m	m	
Turkey	19	9	13	10	n	10	7	7	
United States	m	m	m	m	m	m	m	m	
OECD average ¹	24	8	16	9	2	8	11	9	
EU19 average	25	9	16	9	2	7	12	9	
Chile ⁶	13	5	13	10	5	10	8	5	
Israel	11	11	19	7	x(13)	11	n	7	
Russian Federation	on ⁶ 26	10	16	6	6	10	6	6	

^{*}Source: OECD. See Annex 3 for notes (www.oecd.org/edu/eag2006). Please refer to the Reader's Guide for information concerning the symbols replacing missing data. 1 Australia, Belgium (Fr.) and Belgium(Fl.) are not included in the averages. 2 For 9+0-10-year-olds, social studies is included in science. 3 For 9 and 10-year-olds the curriculum is largely flexible, for 11-year-olds it is about the same as for 12 and 13-year-olds

COMPULSORY INSTRUCTION TIME FOR 9-11 YEAR OLDS (2004)

COMPULSORY CORE CURRICULUM

Religion (9)	Practical and vocational skills	Other	TOTAL compulsory core curriculum (12)	Compulsory flexible curriculum (13)	TOTAL Compulsory curriculum (14)	Non-compulsory curriculum (15)
1	n	1	42	58	100	n
8	x(12)	3	100	x(12)	100	m
a	a	a	a	a	a	a
7	a	n	19	81	100	n
n	n	n	97	3	100	n
4	n	3	100	n	100	n
5	n	5	100	n	100	n
6	n	n	90	10	100	3
n	n	n	100	n	100	n
7	n	3	97	3	100	n
7	n	2	100	n	100	n
n	4	4	100	n	100	15
3	5	3	89	11	100	n
10	n	14	92	8	100	n
a	a	а	a	a	100	n
n	n	21	91	9	100	m
n	2	3	87	13	100	n
7	n	n	100	n	100	n
n	n	n	100	n	100	n
4	n	12	100	n	100	n
a	a	a	a	a	a	a
9	n	9	100	n	100	n
8	n	4	100	n	100	20
n	n	17	97	3	100	3
a	a	a	a	a	a	a
m	m	m	m	m	m	m
x(13)	n	n	91	9	100	n
x(4)	7	n	94	6	100	n
m	m	m	m	m	m	m
7	9	1	91	9	100	20
m	m	m	m	m	m	m
4	1	5	96	4	100	3
4	1	4	97	3	100	3
5	a	2	79	21	100	m
7	n	n	74	26	100	32
n	n	n	87	13	100	m

⁴ German as a language of instruction is included in "Reading, writing and literature" in addition to the mother tongue Luxemburgish. 5 Includes 9 and 11-year-olds only. 6 Includes 10 to 11-year-olds only.

TABLE 6: PERCENTAGE OF WEEKLY INSTRUCTIONAL MINUTES REQUIRED

GRADES 1-3		
	Arizona	Connecticut*****
Reading/Language Arts	45	51
Foreign Languages	0	0
Math	18	19
Science	9	7
Social Studies	9	7
Health	4	2
Physical Education	7	3
Art and Music	7	6
Other	0	3
Total %	100	100
Total Minutes per Week	1650	1724

GRADES 4-6		
	Arizona	Connecticut*****
Reading/Language Arts	38	43
Foreign Language	0	1
Math	19	19
Science	13	10
Social Studies	13	10
Health	4	2
Physical Education	8	4
Art and Music	8	7
Other	0	4
Total %	100	100
Total Minutes per Week	1600	1735

^{*}Wisconsin instructional minutes differ from grade to grade. This chart shows the average instructional minutes in grades 1-3 and 4-6.

^{**}This figure is an average. The state requires 100 minutes of foreign language instruction per week in grades 5 and 6.

^{***}Wisconsin also has instructional time policies for the following subjects: Environmental Education, Computer Literacy and Career Exploration. Time for these subjects is worked into other relevant subjects.

^{****}Massachusetts data is based on grades 2 and 5, respectively.

^{*****}Data based on study of average hours of instruction in selected subjects from 2004-05, and so does not necessarily represent present policies. Only grades 2 and 5 are represented on this data. The other category includes: computer education, family and consumer science and technology education.

IN EACH SUBJECT AREA IN THREE US STATES, GRADES 1-3 & GRADES 4-6

erage
46
0
18
9
9
3
6
8
1
100
1619

Massachusetts****	Missouri	Wisconsin*	Average
37	39	30	37
1	0	4**	1
19	19	15	18
14	13	11	12
14	13	13	12
0	4	7	3
5	4	9	6
7	8	10	8
4	0	0	2
100	100	100	100
1565	1540	1673***	1623

Endnotes

(*) *Acknowledgments:* This paper draws upon a global analysis of annual instructional time prepared with the collaboration of Massimo Amadio, which was submitted as a background paper for the 2005 *EFA Global Monitoring Report: The Quality Imperative* http://www.efareport.unesco.org

Major institutional support for the Comparative Curriculum Project, including the analyses reported herein, was provided by UNESCO's International Bureau of Education (Geneva, Switzerland). Additional funding was provided by the Education Sector of the World Bank, the EFA Global Monitoring Report, and the Israeli Ministry of Education's Pedagogical Secretariat and National Commission for UNESCO. The ideas and opinions expressed in this paper do not represent the views of the aforementioned institutions. Special thanks go to Erin Tanner for her extremely valuable research assistance.

- In 1960, 20 countries signed the OECD Convention and 10 additional countries joined the organization since then. Today, OECD member countries include the following: Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, South Korea, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Spain, Sweden, Switzerland, Turkey, United Kingdom, and the United States.
- A special methodological appendix details the data sources used for instructional time estimates and measures of the official curriculum. For further information, see Aaron Benavot with the collaboration of Massimo Amadio,
 - A Global Study of Intended Instructional Time and Official School Curricula, 1980–2000 (Geneva, 2005), background report prepared for UNESCO's EFA Global Monitoring Report, *The Quality Imperative* (2005).
- ³ In Latin America, see Juan Casassus, S. Cusato, J. Froemel, and J. Palafox, *First International Comparative Study of Language, Mathematics and Associated Factors for Students in the 3rd and 4th Year of Primary School*, Second Report (English translation), Latin American Laboratory for the Assessment of Quality in Education (Santiago: UNESCO-Chile, 2002). In other regions, see the Southern and Eastern African Consortium for Monitoring Educational Quality; and the Monitoring Learning Achievement Project.
- See Brian Holmes, and Martin McLean, *The Curriculum: A Comparative Perspective* (London: Unwin Hyman, 1989); William Cummings, "The Institutions of Education: Compare, Compare, Compare!" *Comparative Education Review* 43 (November 1999): 413–37.
- Ivor F. Goodson, The Making of Curriculum: Collected Essays (London: Falmer Press, 1995); Herbert Kliebard, The Struggle for the American Curriculum, 1893–1958 (Boston, MA: Routledge and Kegan Paul, 1986).
- Adapted from Aaron Benavot, "A Critical Analysis of Comparative Research: Education for Learning to Live Together," *Prospects* 32 (March 2002): 51–73. See also, John W. Meyer, David H. Kamens, Aaron Benavot, Yun-Kyung Cha, and Suk-Ying Wong, *School Knowledge for the Masses: World Models and National Primary Curricular Categories in the Twentieth Century* (London: The Falmer Press, 1992); Elizabeth McEneany and John W. Meyer. "The Content of the Curriculum: An Institutionalist Perspective," in *Handbook of the Sociology of Education*, ed. Maureen Hallinan, 189–211. (New York: Kluwer/Plenum, 2000).

- ⁷ Aaron Benavot, Yun-Kyung Cha, David Kamens, John W. Meyer, and Suk-Ying Wong, "Knowledge for the Masses: World Models and National Curricula, 1920–1986," *American Sociological Review* 56 (February 1991): 85–100.
- ⁸ McEneany and Meyer, "The Content of the Curriculum," 189–211.
- David John Frank, Suk-Ying Wong, John W. Meyer, and Francisco Ramirez, "Embedding National Societies: Worldwide Changes in University History Curricula, 1985–1994," Comparative Education Review 44 (February 2000): 29–53.
- Suk-Ying Wong, "The Evolution of Social Science Instruction, 1900–1986," Sociology of Education
 Ganuary 1991): 33–47; Mary Rauner, "The Worldwide Globalization of Civics Education
 Topics from 1955–1995," unpublished doctoral dissertation (Stanford University, 1998).
- David H. Kamens, John W. Meyer, and Aaron Benavot, "Worldwide Patterns in Academic Secondary Education Curricula, 1920–1990," *Comparative Education Review* 40 (May 1996): 116–38; David Kamens and Aaron Benavot, "Worldwide Models of Secondary Education, 1960–2000," in *School Knowledge in Comparative and Historical Perspective: Changing Curricula in Primary and Secondary Education*, eds. A. Benavot and C. Braslavsky, 135–54 (Amsterdam: Springer; Hong Kong: The University of Hong Kong Press, 2006).
- John W. Meyer, John Boli, George Thomas, and Francisco O. Ramirez, "World Society and the Nation-State," *American Journal of Sociology* 103 (July 1997): 144–81; Connie L. McNeely, "Prescribing National Education Policies: The Role of International Organizations," *Comparative Education Review* 39 (November 1995): 483–507; Mark J. Schafer, "International Nongovernmental Organizations and Third World Education in 1990: A Cross-National Study," *Sociology of Education* 72 (April 1999): 69–88.
- For a contrasting view of the dynamics of educational policy borrowing and diffusion, see Gita Steiner-Khamsi, ed., *The Global Politics of Educational Borrowing and Lending* (New York: Teacher's College Press, 2004).
- See Massimo Amadio, Nhung Truong, Patrick Ressler, and Sky Gross, Quality Education for All? World Trends in Educational Aims and Goals between the 1980s and the 2000s, Background paper prepared by the IBE for UNESCO's EFA Global Monitoring Report, The Quality Imperative (2005).
- B. Bloom, "Time and Learning," American Psychologist 29 (September 1974): 682–88; J. Smyth, "Time and School Learning," in The International Encyclopedia of Education, eds. Torsen Husen and T. Neville Postlethwaite, 5265–72 (Oxford: Pergamon Press, 1985); Lorin W. Anderson, "Time, Allocated and Instructional," in The International Encyclopedia of Education, 2nd ed., eds. Torsen Husen and T. Neville Postlethwaite, 6388–90 (Oxford: Pergamon-Elsevier, 1994); B. Millot, "Economics of Educational Time and Learning," in International Encyclopedia of Economics of Education, 2nd ed., ed. Martin Carnoy, 353–58 (Oxford: Pergamon-Elsevier, 1995).
- A. Harnischfeger, and D. E. Wiley, "Time Allocations in 5th Grade Reading," Paper presented at the Annual Meeting of the American Educational Research Association (New York, 1977).
- H. Walberg, "Uncompetitive American Schools: Causes and Cures," in *Brookings Papers on Education Policy*, ed. Diane Ravitch, 173–205 (Washington, D.C.: Brookings Institution, 1998).

- ¹⁸ J. Aronson, J. Zimmerman, and L. Carlos, "Improving Student Achievement by Extending Schools: Is It Simply a Matter of Time?" Available at http://www.wested.org/online_pubs/time-andlearning/TAL_PV.html. See also Nancy Karweit, "Time on Task: The Second Time Around," NASSP Bulletin 72 (February 1988): 31–39; Lorin W. Anderson, ed. Time and School Learning, (London: Croom Helm, 1984); F. Demfer, "Time and the Production of Classroom Learning," Educational Psychologist 22 (1987).
- 19 See also the methodological appendix.
- See Kamens, Meyer, and Benavot, "Worldwide Patterns in Academic Secondary Education Curricula," 121.
- ²¹ A list of detailed sources is available upon request.
- ²² Benoit Millot and Julia Lane, "The Efficient Use of Time in Education," *Education Economics* 10 (August 2002): 209–28; Aaron Benavot, and Limor Gad, "Actual Instructional Time in African Primary Schools: Factors Inhibiting Quality Education in the Developing World," *Prospects* 34 (September 2004).
- The Comparative Curriculum Project examined the organization of upper-secondary education, using an expanded list of 45 subject areas to capture the greater diversity of knowledge areas included in official timetables.
- ²⁴ Yun-Kyung Cha, "The Effect of the Global System on Language Instruction, 1850–1986," Sociology of Education 64 (January 1991): 19–32.
- ²⁵ UNESCO, World Culture Report 2000. Cultural Diversity, Conflict and Pluralism (Paris: UNESCO, 2000).
- ²⁶ Similar patterns were found in analyses of instructional time policies for the 1980s. See Benavot, A Global Study of Intended Instructional Time and Official School Curricula, 2005.
- ²⁷ With few exceptions, the vast majority of U.S. states hold classes for between 170 and 180 days a year. The average for the states with detailed time information is 177 days, and 179 days for the second group of states.
- ²⁸ The lower section of table 2, which reports annual instructional hours for 10 U.S. states without sufficiently detailed policy documents, indicates, as to be expected, high levels of instructional hours. This is true not only in relation to other U.S. states but also OECD countries.
- ²⁹ OECD, Education at a Glance: 2006 (Paris: OECD, 2006).
- ³⁰ See Benavot, A Global Study of Intended Instructional Time and Official School Curricula, 2005.
- ³¹ The subject labels used by countries to refer to this curricular area is standardized ("mathematics"). In sixth through ninth grade specialized topics like arithmetic or geometry are sometimes specified. The analyses combined instructional time for all mathematics-related subjects.
- The declining importance of mathematics education across grade levels can also be seen in the 1980s. See Benavot, *A Global Study of Intended Instructional Time and Official School Curricula*, 2005. Analyses of upper-secondary curricula indicate that the percentage of instructional time devoted to mathematics education continues to decline in upper-secondary grades, with the exception of specially designated mathematics or science tracks. See Aaron Benavot, "The Diversification of Secondary Education: School Curricula in Comparative Perspective," *IBE Working Papers on Curriculum Issues*, no. 6 (Geneva, Switzerland: IBE, 2006). Available at http://www.ibe.unesco.org/resourcebank/working_papers.htm.

- ³³ David H. Kamens and Aaron Benavot, "Elite Knowledge for the Masses: The Origins and Spread of Mathematics and Science Education in National Curricula," *American Journal of Education* 99 (February 1991): 137–80.
- ³⁴ Ivor F. Goodson, School Subjects and Curriculum Change, 2nd ed. (London: Falmer Press, 1987).
- ³⁵ Zero-order correlations between history, geography and civics versus social studies are -0.18, -0.20. -0.18 (first through third grade); -0.50, -0.53. -0.17 (fourth through sixth grade); and -0.78, -0.77. -0.34 (seventh and eighth grade).
- ³⁶ For example, instruction in arts, crafts, dance, and the like is declining in importance in Latin America, Sub-Saharan Africa, and East Asia, but increasing in importance in Western and Eastern Europe, South and West Asia, and the Arab States.
- ³⁷ For further evidence on the marginalization of aesthetic education, see Massimo Amadio, N. Truong, and J. Tschurenev, "Instructional Time and the Place of Aesthetic Education in School Curricula at the Beginning of the Twenty-First Century," *IBE Working Papers on Curriculum Issues*, No. 1. (Geneva: UNESCO-IBE, 2006); Jurgen Oelkers and S. Larcher Klee, "The Marginalization of Aesthetic Education in the School Curriculum," in *School Knowledge in Comparative and Historical Perspective*, eds. A. Benavot and C. Braslavsky, 105–118 (Hong Kong: University of Hong Kong Press, 2006).
- ³⁸ Developing reliable cross-national estimates of annual instructional time, especially at multiple time points, presents a formidable methodological challenge. See Aaron Benavot, *Curricular Content, Educational Expansion & Economic Growth*, Policy, Planning and Research Working Papers, Education & Employment (Washington, D.C.: World Bank, 1991); UNESCO, Vittoria Cavicchioni and Anna Eriksson, Section of Statistics on Education-Division of Statistics, *Special Survey on Primary Education* (Paris: UNESCO, 1991); and Aaron Benavot with the collaboration of Massimo Amadio, *A Global Study of Intended Instructional Time and Official School Curricula, 1980–2000* (Geneva, IBE, 2005). An examination of national figures from different sources reveals the many definitional and reliability problems associated with this research tradition. Nevertheless, in addition to the constant case analyses performed, the present database represents the most accurate instructional time data available.
- ³⁹ Examples of "combined" subjects include *Pensamiento, acción social e identidad nacional* [Social thought, social action and national identity] or *Histoire, éducation civique et géographie* [History, civic education and geography].
- ⁴⁰ The Comparative Curriculum Project examined the organization of upper-secondary education, using an expanded list of 45 subject areas to capture the greater diversity of knowledge areas included in official timetables.

Comfortable with Big Ideas

John Backus

Venture Capitalist and Founder of New Atlantic Ventures

It wasn't until I began to write this essay at the request of the Fordham Foundation that I reflected on the impact that my K–12 education has had on my success in the business world. Every day I apply some of the practical business strategies that I learned at Stanford University, where I was both an undergraduate and a master of business administration student. Additionally, the friendships I formed there provided an important dimension of my professional life, both as an executive and as a venture capitalist. Through this writing, however, I came to recognize the subtle yet more powerful impact that my early childhood education has had on my career and my life.

As a founder and managing partner of a venture capital firm, I try to make informed investments in emerging technology companies. We look for a combination of great entrepreneurs, fast-growing markets, big ideas, and proprietary technology. But at its simplest level, my job boils down to two things: selection and adding value. We first have to select the right team to back and then we have to add value to the business.

For every company we invest in (perhaps three to five each year), we review hundreds of businesses and meet in person with scores of teams. Each day we receive dozens of business plans and PowerPoint presentations. We don't evaluate and score each idea. We try to find—quickly—the one or two best ideas and schedule a meeting to learn more. At this stage, it is all about efficiency. I immediately dismiss an incoming plan with poor grammar, faulty reasoning, or typos. It makes me think the writer is dumb, lazy, sloppy, or all of the above. These are not the skills that make a successful entrepreneur. The process underscores for me the importance of grounding students, early in life, with the fundamental skills of grammar, rhetoric, and logic as essential components of a liberal education.

Once we invest in a company, we work as their financial partner to help them create a strong vision, plot strategy, complete their senior management teams, form strategic partnerships, build advisory boards, recruit outside board members, attract additional value-added investors, find customers, and plan exit strategies. To be successful at this task—that is, helping entrepreneurs build great companies—we use a range of intellectual and interpersonal skills, all of which, in my case, I developed early in life within the context of my education.

I began my elementary school education in Caracas, Venezuela, where I lived through the fourth grade. I was different than others around me. I looked different, I spoke a different language, and I was steeped in a culture that was different than what I saw when I went home each day. It was a given that I learned to appreciate the history, geography, art, and music of another culture and language. Just as I discovered that Simon Bolivar was the George Washington of Venezuela, I learned that "different" didn't mean better or worse—instead, it expanded the horizons through which I viewed the world. We can't send all American kids abroad for school, but we *can* immerse them in other cultures through systematic instruction in history, geography, civics, art, music, and more. For me, in my business, this experience matters because the breakthrough ideas and entrepreneurs are not obvious. The ability to think outside one's comfort zone, or grasp another's idea that is not your own, are skills that we learn early in life, in the classroom, not in our homogeneous communities.

The investors in our fund come not only from the United States, but also from Japan, Germany, Italy, Switzerland, and beyond. Our companies have operations in the United Kingdom, India, China, Ukraine, and 20 other countries. I have no doubt that my early education about other countries' histories and cultures has made me a better investor.

I believe that successful entrepreneurs don't simply stumble on good ideas. Successful entrepreneurs are prepared, knowledgeable, dedicated, and hard working. They are inspired and able to think outside of the box. They see what others do not see or are unwilling to see. They are comfortable with big ideas and willing to take risks. They are the ones who wrote papers that were different than those of their classmates—papers that made their teachers think.

Excellence for Its Own Sake

• • •

Matthew Bogdanos¹

Assistant District Attorney in Manhattan; Marine officer; author Thieves of Baghdad²

There has been much fanfare in the media about my seemingly inconsistent pursuits: a New York City homicide prosecutor who is also a published author, a combat Marine who can read classical Greek and Latin, and a middleweight boxer who once danced ballet. The attention is misplaced, however, because I have no special talents. But I am driven. And the basis of that drive is my firm belief that all of these pursuits come from the same place. It all started with a book.

When I was 12 years old, my mother—a waitress in my family's Greek restaurant in lower Manhattan—gave me a copy of the *Iliad*. For me, reading the *Iliad* and inhabiting Homer's world of heroes, duty, and honor transported me to another place. Reading about that world pretty much set the course for everything else I've done since. Indeed, it was identification with the Bronze Age Greeks and their values that led me to take up boxing, to join the Marines, and to become a prosecutor. And it was my fascination with history—reinforced by a rigorous liberal arts education—and my appreciation of the Greek concepts of *themis* (what's right) and *arête* (excellence for its own sake) that made me want to track down some of the world's oldest and most precious antiquities that had been stolen from the Iraq Museum in April 2003.

Historically, the life of action and the life of the mind (or artistic sensibility) have always been two halves of a single whole. Today, when we conjure up the classical Greek ideals, we think of philosophy and art, but even in their greatest contributions to aesthetics, Greek society was all about *agon*—competition. Each year in Athens, the presentation of new plays was such a competition, with Aeschylus, Sophocles, and others vying for the prize in playwriting. But *agon* does not mean hostility. In almost every boxing match since the ancient Olympics, you'll see the fighters hug each other after the last round.

In my view, then, being efficient and ruthless on the battlefield is entirely consistent with being a loving, fully sensate human being. It is not so much a question of bouncing back and forth but of integrating. At times, being a good military officer means having compassion and sensitivity: witness Siegfried Sassoon, winner of the Military Cross for his bravery during the Battle of the Somme, who wrote poems from

the trenches in World War I, expressing the same tender "watch while they sleep" concern for his men on the battlefield that I have experienced with my children. At times, being a good parent means being tough and demanding. Witness those parents sturdy enough to be the solid brick wall a teenager can rail against, even beat his fist against, without the inhibiting fear of doing damage. We should take down the wall we've set up between being fiercely loving and being occasionally fierce.

Arête is a Greek word, but we don't have to say it in Greek for the concept to sound out of place. Even in English it's something of an anachronism. But honor is not some antique refinement, like knowing classical languages. Honor and education are force multipliers. If you decide in advance to act honorably, then, when the moment arises, you know exactly what to do. It doesn't mean you do it, but at least it points you in the right direction straight as the needle to the pole.

The concept of honor, like the concept of bravery, is a form of mental conditioning for the individual. Culture and custom, codes and systems of honor, are society's version of the same kind of conditioning—only in this case, it's a form of *societal* muscle memory. Liberal arts education helps guide us in this collective training. In a very real sense, then, it offers a possible answer to Juvenal's question of the first century, "Who will guard the guardians?" We all will as a society based on the code we have established. "What is honored in a country," Plato observed, "will be cultivated there." But in order to cultivate it, first you must learn about it.

Endnotes

- Matthew Bogdanos has been an assistant district attorney in Manhattan since 1988. A colonel in the Marine Corps Reserves, middleweight boxer, and native New Yorker, he holds advanced degrees in law, classics, and military strategy. Recalled to active duty after September 11, 2001, he received a Bronze Star for counterterrorist operations in Afghanistan, served two tours in Iraq, and received a 2005 National Humanities Medal for his work recovering Iraq's treasures. Royalties from *Thieves of Baghdad* are donated to the Iraq Museum.
- Adapted from Thieves of Baghdad: One Marine's Passion to Recover the World's Greatest Stolen Treasures (New York: Bloomsbury, 2005). Copyright 2005 by Matthew Bogdanos.

Complacency and Its Consequences

• • •

Chester E. Finn, Jr. & Diane Ravitch

Chester E. Finn, Jr. is a senior fellow at Stanford's Hoover Institution and president of the Thomas B. Fordham Institute. Diane Ravitch is a senior fellow at the Brookings Institution and at the Hoover Institution, and is a research professor at New York University.

Most such volumes end with a stirring summation of their key arguments, a recapitulation of the authors' major recommendations, and a clarion call for action. Yet if you've made it this far, you know what we and our fellow contributors believe: Liberal education is the best education for all children. We hope to see it reinvigorated and made available in all our schools. In the preceding pages, you've encountered scores of specific proposals, big and small, for its revival. These recommended actions are collected in Appendix A. In short, they come down to a few key steps: recruiting talented teachers who themselves enjoyed a rigorous liberal education; arming them with a solid, content-rich, common curriculum; and holding them and their schools to account for preparing students broadly, not just in "basic skills."

If this doesn't sound revolutionary, that's because it's not. After all, liberal education is by its very nature traditional. It has been around for thousands of years. And it seeks to conserve and transmit the best wisdom and noblest ideals of the past, while preparing young people for a future that cannot be mapped in advance and that will therefore reward breadth more than hyper-specialization. We fundamentally believe that good education is good education is good education—and good for everyone, not just the elites who have long found ways to procure it for their kids. Nor are our proposals path-breaking. They represent a vision of standards-based reform that the two of us have pressed for a quarter-century.

So rather than bombard you with more of the same, let us conclude this collection of essays in a non-traditional manner. You know what we *hope* will happen vis-à-vis liberal learning in this country. Let us now consider what is *most likely* to happen, and contemplate the consequences.

Four Disconcerting Trends

In order for liberal education to be reborn—at least for Everyman and Everywoman—its advocates must overturn four trends that point in the opposite direction:

- 1. The gradual death of liberal learning in higher education. David Steiner's essay points out that career preparation and professional training have replaced liberal education as the primary objective of most U.S. colleges and universities. Unabated, this trend bodes ill for our K-12 system. First, like all bad (and some good) ideas in higher education, it trickles down into the high schools and signals to students and teachers that a broad education is not valued. This encourages courses such as Advanced Placement to be narrowed to specialty topics rather than broad surveys. Even more perniciously, this trend makes it less likely that future K-12 teachers will themselves receive a proper liberal education. As E. D. Hirsch and Dana Gioia note, it's impossible for teachers to impart a liberal education to their students if they never obtained one themselves. Despite Sandra Stotsky's excellent ideas, no amount of "professional development" can fully compensate.
- 2. A standards-and-accountability movement increasingly focused only on "basic skills." We've learned from Martin West that schools are responding predictably, if disappointingly, to the incentives created by NCLB and kindred state accountability systems, which obsess about reading and math skills but generally ignore the acquisition of knowledge. West's analysis shows that a different kind of accountability system—one that includes testing in science and history, too—can foster a broader curriculum. Yet we know from experience that politicians and their supporters in business and industry would rather duck the hard questions of what history or science or literature students must learn, which causes them to end up slighting these subjects altogether. Yet we reap what we sow—and we teach what we test—and narrow accountability systems foster narrow schooling, not only for the high-poverty, high-minority students most at risk of not making "adequate yearly progress," but in almost all public schools.
- 3. Growing support for math and science at the expense of the rest of the curriculum. Matt Gandal, Michael Cohen, and John Kraman confirm that industry leaders are worried about America's supply of scientists, engineers, and technicians. They have therefore organized a shrewd campaign to press Congress and state legislatures to take strong action to reverse the decline of "STEM" students by creating all sorts of special schools, programs, funding

streams, and rules. That approach is half-right, but without a broader vision for education—such as the one eloquently expressed by Dana Gioia—we are apt to produce technicians instead of innovators. We certainly won't produce leaders with the vision to steer the nation and its communities (or its business firms) toward a bright future.

Widening gaps. Combine these education trends with the dominant socio-eco-4. nomic story of our age—the accelerating advantage of the have-a-lots over the have-littles—and we see a worsening achievement gap, not its opposite. For the well-to-do may be the only ones in a position to purchase a liberal education for their young. A few top private schools will remain committed to liberal learning, as will elite private colleges. Ample after-school and summer school programs, "virtual" offerings and computer software, will supplement the skimpy offerings of conventional schools. Wealthy kids will have the luxury to study philosophy and art, music and history, while their less-fortunate peers fill in bubbles. Some of these affluent graduates may drift but others will become the next generation of corporate titans, political leaders, hedge fund managers, and dot-com entrepreneurs. The less advantaged will see narrower opportunities due to their narrower educations. Some will find no opportunities at all, which frustration will tempt them to prey upon the fortunate, who in turn will retreat into gated communities, exclusive clubs, and private this-and-thats, thereby widening the rifts in our society and worsening its prospects for cohesion, civility, and social progress.

What will be the ultimate result of these four trends? Unless they are halted and reversed, we will gradually enter our own Dark Ages in which liberal education is restricted to the fortunate few while the masses consume the economy's crumbs and the sugary temptations of pop culture. Sure, history "buffs" and literature "fanatics" and art "patrons" will survive. Our increasingly fractured media will respond to their niche interests, just as they serve others who like NASCAR or poker. But notions of a common culture—beyond the lowest-common denominator—will recede.

Newspapers will lose more readers and will either dumb down their content or disappear. Voters will become even less informed, less engaged, and less apt to cast their ballots. (In time, more will vote for "survivors" and winners and beauties on TV shows.) And if this dire scenario plays out, the American vision of a democratic education system nourishing a democratic society will perish.

Too gloomy? Perhaps. But as David Ferrero argues, those of us who care deeply about liberal education seem to be a dying (or at least aging and retiring) breed. It will soon be time to pass the torch to a new generation of advocates and intellectuals who can stand up for the virtues of a virtuous education. We are currently working—with many of this volume's contributors—to catalyze an organization that can lead this charge for years to come, that can pursue the policy proposals listed in the appendix, and that can communicate the vision and arguments of this book to key opinion leaders, policymakers, and the public. We earnestly hope that it succeeds.

It may already be too late. There may already be too few Americans left who appreciate the soul-nourishing benefits of a liberal education, the "pleasure, beauty, and wonder," as Dana Gioia says. The worrisome trends described above may have gained too much ground to recover.

We hope not. We'll keep pushing as long as we have strength and breath. But this cause needs many more allies, advocates, and partisans. Can we count you among them?

Recommendations for Action

• • •

The authors offer a wide array of suggestions for ensuring that every child receives a solid liberal education. Here we recap their recommendations under four broad headings: Standards, Assessments, and Curriculum; Teacher Education, Professional Development, and Compensation; Choice and Innovation; and Public Engagement.

We also suggest which sector we judge is best suited to implement these ideas: the Federal government (F), state government (S), local governments (L), or the private sector (P). And we've cross-referenced each recommendation back to the page on which it originally appears.

Note, please, that these suggestions represent the views of individual authors, not necessarily those of other contributors or the staff or trustees of the Thomas B. Fordham Institute.

Standards, Assessments, and Curriculum

■ Establish High-quality Standards across the Liberal Arts Fields

- Create K-12 academic standards that provide criteria by which to cultivate sophisticated reasoning abilities as students study history, culture, etc., while leaving room for individual schools and educators to interpret and apply them (F/S). pp. 24, 131.
- Teach students reading and math skills through substantive liberal arts topics. For example, revamp English readings to focus on historical, philosophical, and civic concerns; tie math problems to scientific and economic issues. (S/L). pp. 20, 37, 115.

Administer Assessments in Liberal Arts Subjects

• Redefine "adequate yearly progress" (AYP) in NCLB and require students to take and pass tests in liberal disciplines, such as history (F/S). p. 54.

■ Provide Strong Curricular Materials

- Distribute and encourage districts to use the liberal-arts materials that have been developed by (inter alia) the national endowments for the Humanities and the Arts. (F). p. 115.
- Specify chronologically how cumulative learning should proceed within and across grade levels (F/S). p. 115.

• Provide teachers with examples of fully developed lesson plans (F/S). p. 115.

■ Ensure Adequate Instructional Time for the Liberal Arts

- Specify the amount of instructional time that students must actually receive in school rather than (or in addition to) the length of the school day (S). p. 87.
- Carefully monitor the time that schools devote to liberal-arts subjects to see if it matches state objectives (S). p. 71.

Teacher Education, Professional Development & Compensation

■ Strengthen Teacher Preparation

- Standardize the core content that all would-be teachers are required to know, making certain to include the liberal arts, and reshape certification requirements accordingly. (S). pp. 73, 102, 114, 121.
- Increase joint efforts by arts-and-sciences faculty and education faculty to ensure that would-be teachers receive more instruction in content that's well suited to what they will be teaching. (S). p. 122.
- Expose would-be teachers to the results of international assessments and the conclusions that can be reasonably drawn from them (e.g., American high school students are exposed to too many topics in too short a time span to allow them to grasp basic concepts). (F/S). p. 123.

Rethink Professional Development

- Revise the criteria for renewing teaching licenses so that K-12 instructors take discipline-centered graduate courses (S). pp. 101-102.
- Weight the credit that teachers receive for professional development courses so that content-specific seminars earn more credits than those focused on pedagogy or policy (S/L). p. 99.
- Provide funds for professional development courses focused more on content than on process. (F). p. 115.
- Offer free seminars in liberal-arts fields so that teachers can easily pursue advanced workshops in their teaching areas (F/S). p. 101.
- Allow middle and high school teachers to receive professional development credits for courses taken in related subjects. (Biologists should get credit for chemistry courses, for example, and historians for courses in political theory.) (S/L) p. 102.

- Encourage university professors and doctoral students in liberal arts disciplines to work with K-12 teachers by revising the "public outreach" requirements of graduate school grants (F/S). p. 102.
- Fund summer externships for teachers to engage in scholarly research related to their teaching field (F/S/L/P). p. 102.

Revamp Teacher Compensation Systems

• Reset salary schedules so that teachers with content-specific M.A. degrees are compensated more favorably than those with education degrees (S/L). p. 99.

Choice & Innovation

Instill a Passion in Students for Liberal Arts

• Fund extracurricular activities in music, visual art, dance, theatre, etc. (F/S/L/P) p. 115.

■ Widen Options within Public Education

 Increase the number of charter schools and the amount of other options available so that individual schools can flexibly pursue different approaches to liberal education as part of an "autonomy-in-return-for-accountability" model (S/L) p. 130.

■ Make Imaginative Use of Virtual Education

- Revise regulations governing instructional time to allow students to fulfill these hours virtually—and make available more online courses to supplement school-based instruction (F/S). p. 144.
- Encourage the development of hybrid schools (combining brick and mortar schools and virtual learning) as well as full-time virtual schools (F/S). p. 144.

Public Engagement

■ Educate the Public

• Fund and publicize research on how a liberal arts education helps create good citizens, fosters prosperity and strengthens the culture (F/S/P). pp. 143-44.

■ Create a Network of Liberal Educators

• To fill the vacuum left by the Council for Basic Education, create a new umbrella organization to give liberal educators opportunities to share ideas and advocate sound policies (F/S/L/P). p. 40.

When the No Child Left Behind Act was passed in 2001, few could have foreseen the negative impact it would have upon the subjects not tested, such as the arts and history. As testing requirements forced schools to increase the time devoted to these important subjects, it also compelled teachers to limit the time spent on history, science, music, art, and a host of other "liberal" disciplines. In *Beyond the Basics: Achieving a liberal education for all children*, Chester E. Finn, Jr., and Diane Ravitch have assembled a group of papers—most presented in December 2006 at a conference in Washington, D.C., on this same topic—that examines the problem and suggests ways to revive the liberal arts, so that young Americans are prepared not only for work but for a satisfying life. From political leaders to foundation leaders, and scholars to policy experts, readers will find a range of innovative ideas and avenues for tackling this critical problem.

"There may ... be too few Americans left who appreciate the soul-nourishing benefits of a liberal education," write Finn and Ravitch in the conclusion, "but this cause needs many more allies, advocates, and partisans. Can we count you among them?"

CONTRIBUTORS

- John Backus Venture Capitalist and Founder of New Atlantic Ventures
- Joan Baratz-Snowden President of the Education Study Center and former Director of the Educational Issues department of the American Federation of Teachers
- Aaron Benavot Senior Policy Analyst on the Education for All Global Monitoring Report team
 located at UNESCO headquarters in Paris and a Senior Lecturer (on leave) from the
 Department of Sociology and Anthropology at the Hebrew University of Jerusalem (Israel)
- Matthew Bogdanos Assistant District Attorney in Manhattan; Marine officer; author, Thieves of Baghdad
- Michael Cohen President of Achieve, Inc.
- David J. Ferrero Senior Program Officer for the Bill and Melinda Gates Foundation and a former high school teacher
- Chester E. Finn, Jr. —A Senior Fellow at Stanford's Hoover Institution and President of the Thomas B. Fordham Institute
- Matthew Gandal Executive Vice President of Achieve, Inc.
- Dana Gioia Chairman of the National Endowment for the Arts as well as a successful poet and literary critic
- E.D. Hirsch, Jr. University Professor Emeritus of Education and Humanities at the University
 of Virginia, author of The Knowledge Deficit, and other works, and founder of the
 Core Knowledge Foundation
- John Holdren Senior Vice President of Content and Curriculum for K12 Inc.
- John Kraman Senior Policy Analyst at Achieve, Inc.
- Diane Ravitch A Senior Fellow at the Brookings Institution and at the Hoover Institution, and a Research Professor at New York University
- Bror Saxberg Chief Learning Officer for K12 Inc.
- David Steiner Dean of the School of Education, Hunter College
- Sandra Stotsky An education consultant and member of the Massachusetts Board of Education
- Kate Walsh President of the National Council on Teacher Quality
- · Martin West Assistant Professor of Education, Political Science, and Public Policy at Brown University



Thomas B. Fordham Institute 1701 K Street, NW, Suite 1000, Washington, D.C. 20006

This publication is available online at www.edexcellence.net